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Report on the Demographic Situation in Canada 1993

Current Demographic Analysis

Mexico's Demographic Challenges
(An Overview)



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Report on the Demographic Situation in Canada 1993

Current Demographic Analysis

Jean Dumas
Demography Division

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Supplementary

*The reader should be reminded that the publication of successive versions of the **Report on the Demographic Situation in Canada** does not render previous versions obsolete. Rather, since a different substantive focus is taken with each issue, the volumes actually complement each other. Furthermore, certain of the basic demographic topics are covered in serial format, making the volumes a valuable source of time series data on the Canadian demographic scene.*

Preface

In 1993, Statistics Canada began producing new population estimates which take into account categories of individuals formerly omitted from demographic accounts (non-permanent residents and persons not enumerated in the Census). The result is more accurate population data, including related demographic rates and indices. Part I of this report, which chronicles Canada's most recent demographic developments, takes into account these improvements.

With the heightened interest in Mexico arising from the North American Free Trade Agreement, Part II of the report is particularly timely. It presents a description of the Mexican population, with a view to situating it within the North American context and facilitating a better understanding of its evolution, its current conditions and its prospects for the future.

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Highlights

PART I

- The Canadian population as of January 1, 1993, is estimated at 28,593,400, an increase of 321,000 people (1.13 %) over the last year.
- Saskatchewan's population continued to decline in 1993, while that of British Columbia increased by 2.4 %, double the national growth rate of 1.1 %.
- From 1990 to 1991, the total number of marriages was down 8 % and 4.5 % from 1991 to 1992, a drop never before equalled in Canada. All provinces showed a decrease in the total marriage rate and, with very few exceptions, rates were down for all ages, indicating an overall downward trend compounded perhaps by the effects of the recession.
- There were 3,005 fewer births in Canada in 1991 than the previous year. This decrease, the first since 1987, was felt in all provinces except Ontario and British Columbia. In these two provinces, there was a slight upswing, due more to an increase in the number of women of child-bearing age than to the actual fertility of these women.
- The total fertility rate was again up slightly in Quebec, at 1.65 children per woman, and down slightly in the rest of Canada at 1.71. The rate for 1992 remains unchanged.
- First-marriage tables for 1991 indicate that of 100,000 people never married at age 15, 23,000 males and 28,000 females would be still unmarried at age 50. The corresponding figures in 1976 were 7,000 and 8,000.
- The 1980s formed the first decade during which gains in life expectancy for men were higher than those for women. Even though the gap between the sexes decreased by one year over the decade, Canadian women were still ahead with a life expectancy of 80.7 years compared to 74.2 for men. Canada ranks eighth in the world for male life expectancy and fifth for that of women.
- Canada accepted 252,842 immigrants in 1992. In terms of country of birth Hong Kong was in first place with 27,873 immigrants, followed by China with 22,131. As usual, Ontario was the destination of close to 55 % of all immigrants. With the diversification of countries of origin, the proportion of immigrants who speak neither of Canada's official language is on the rise, and in recent years has been close to half of the total, compared to 33 % in 1978.

- In 1991, Alberta and particularly British Columbia again recorded positive internal migration balances. With the exception of Nova Scotia, which had a slight gain, all other provinces had negative balances, with that of Saskatchewan being particularly significant at - 9,926. Losses for Quebec, which had been down in recent years, increased in 1991 (- 11,690).
- While migration between metropolitan area was large from 1986 to 1991, the effect of such movements was relatively small with net gains occurring only in cities west of Quebec.
- The most recent birth cohorts to arrive on the job market suffered most from the economic recessions of the early 1980s and 1990s. Looking at the historical record, those born after 1956 have experienced high unemployment rates through their entire work life.

PART II

- Mexico is a country with a population of 84 million (about three times that of Canada). It is made up of 32 states, of which 25 have a population of over a million; however, half the population is concentrated in only seven states.
- Mexico has not yet completed its demographic transition and can thus expect to experience relatively strong population growth in the future. The average annual rate of increase in the 1980s was 2.5 %, notwithstanding continued emigration to the United States.
- Since the turn of the century, the crude birth rate in Mexico remained between 40 and 45 per 1,000, with only slight fluctuations, until the mid-1970s. A firm downward trend began in 1975. The total fertility rate dropped from 6.0 children per woman in 1975 to 4.4 in 1981 and 3.8 in 1986.
- The decline in fertility in Mexico was accelerated by strong incentives in favour of contraception. The proportion of married Mexican women of child-bearing age using some contraceptive method rose from 30 % in 1976 to 53 % in 1987.
- Between 1930 and 1990, male life expectancy in Mexico increased by 31.4 years, and female life expectancy by 36.1 years, a record of swiftness for a population of that size. These gains have meant that mortality in Mexico in 1990 is similar to that experienced in Canada in 1950.
- Mexicans appear to marry earlier than Canadians. For example, in the 25-29 age group, only 21 % of Mexican women had never married, while the figure for Canadian women in the same age group was 30 %. Similarly, 29 % of Mexican males aged 25 to 29 had never married, compared to 46 % of Canadian men.

- Between the 1980 and 1990 U.S. censuses, the number of Mexican immigrants rose from 2.2 million to 4.4 million, an increase of 102.2 % in 10 years.
- Mexicans start working younger, with 12 being the minimum age of the working population. In the 1990 census, 11.1 % of boys 12 to 14 years of age were in the labour force. People stay in the labour force longer, as well; the participation rate for those 65 and over was 45.9 %, compared to 10.2 % in Canada.
- Between 1960 and 1990, the proportion of Mexicans living in cities of over 100,000 rose from 18.7 % to 44.4 %. Mexico City alone had approximately 18 % of the total Mexican population, and four cities accounted for 44 % of the total urban population.
- Mexican populations “speaking an indigenous language” are mainly located in the southern and central parts of the country. The 1990 census estimated at over 6 million the number of people who speak an indigenous language, or 7.9 % of the Mexican population. The proportion of the Canadian population able to speak an aboriginal language was 0.4 %.

Part I

DEMOGRAPHIC ACCOUNTS¹

The population of Canada on January 1, 1993 was estimated at 28,593,400, an increase of 321,200 over last year, for a growth rate of 1.13%. *This rate, which is lower than that of last year, has been declining since 1988 (1.59%)* (tables 1A and 1B), and is now slightly under the average for the last 21 years (1.21%).

New Components

The total increment of 321,200 people is much less than in 1989, which marked a peak (429,900) despite slightly higher natural increase and much higher net international migration. This situation, which at first glance appears absurd, is due to the balance between the inflow and outflow of temporary immigrants, which is now included in the accounting, as are returning Canadians, i.e. Canadians who had left the country and have once again taken up permanent residence here (see chapter on recalculated estimates).

In actual fact, introducing non-residents does make demographic accounting somewhat more difficult to understand, but it does make it more accurate, insofar as the goal of these accounts is to show the number of people living in the country on a given date and the phenomena responsible for their presence there.

Natural increment is an increase in the number of actual persons, while in the accounts, at no time do immigrants correspond to the number of people physically entering the country during the year, since these are people who are granted landed-immigrant status, some of whom had already been in the country since the previous year or even before. The number of incoming non-residents is an estimate of actual persons, based on the number of temporary residence permits issued, but exiting non-residents are not all people leaving the country, since part of the total is made up of people who have been granted immigrant status and thus have only been moved from the non-resident to the immigrant column.

The result of these actual and statistical comings and goings is that the flow increment is equal to the sum of international net migration (obtained by taking the difference between landed immigrants and the estimated number of actual emigrants) the balance of non-residents and returning Canadians.

For example, in 1990, the estimated *increase in the number of people in Canada due to migratory flows was 214,200* (international immigrants) – 11,000 (balance of non-permanent residents) + 19,400 (returning Canadians) – 39,600 (international emigrants) = 183,000, *representing 48% of the total increase for the year* (Table 1A).

¹ These accounts and their analyses are not comparable with those of previous years (see following chapter on the autonomy of estimates).

Table 1A. Statement of Population Change, Canada, 1972-1993
(figures in thousands), New Estimates

Year	Population as of January 1	Total Growth	Births	Deaths	Natural Increase	Interna- tional Immigrants ¹	In	
							Returning Canadians	Non- permanent Residents ⁵
		(1)	(2)	(3)	(4) = (2) - (3)	(5)	(6)	(7)
1972	22,157.8	256.7	347.3	162.4	184.9	122.0	37.1	...
1973	22,414.5	303.7	343.4	164.0	179.4	184.2	37.8	...
1974	22,718.2	326.2	345.7	166.8	178.9	218.5	36.0	...
1975	23,044.4	326.6	359.3	167.2	192.1	187.9	36.4	...
1976	23,371.0	289.7	360.0	167.0	193.0	149.4	36.1	...
1977	23,660.7	261.1	362.2	167.5	194.7	114.9	32.3	...
1978	23,921.8	224.3	358.4	168.2	190.2	86.3	31.8	...
1979	24,146.1	276.0	366.1	168.2	197.9	112.1	30.3	...
1980	24,422.1	322.1	370.7	171.5	199.2	143.1	27.6	...
1981	24,744.2	317.6	371.4	171.0	200.4	128.6	25.4	...
1982	25,061.8	268.5	373.1	174.4	198.7	121.2	28.3	...
1983	25,330.3	244.4	373.7	174.5	199.2	89.2	26.8	...
1984	25,574.7	243.6	377.0	175.7	201.3	88.2	26.2	...
1985	25,818.3	246.2	375.7	181.3	194.4	84.3	27.3	...
1986	26,064.5	297.2	372.9	184.2	188.7	99.2	25.4	...
1987	26,361.7	346.1	369.7	185.0	184.7	152.1	24.2	...
1988	26,707.8	428.9	376.8	190.0	186.8	161.9	21.5	...
1989	27,136.7	429.9	392.7	191.0	201.7	192.0	21.1	...
1990	27,566.6	385.0	405.5	192.0	213.5	214.2	19.4	...
1991	27,951.6	320.6	402.5	195.6	206.9	230.8	7.2 ⁶	119.9
1992 (PR)	28,272.2	321.2	404.3	199.0	205.3	248.7	...	164.8
1993 (PR)	28,593.4	...	...	...	...	...	...	...
	Population as of January 1	Out		Net			Residual ⁴	
		Interna- tional Emigrants ²	Non- permanent Residents ⁵	International Migration Statistic ³	Non- permanent Residents	Growth by Flow		
		(8)	(9)	(10) = (5) - (8)	(11) = (7) - (9)	(12) = (6) + (11) + (10)	(13) = (1) - (12) - (4)	
1972	22,157.8	63.2	...	58.8	3.0	98.8	- 27.0	
1973	22,414.5	78.5	...	105.7	7.9	151.4	- 27.1	
1974	22,718.2	78.1	...	140.4	- 2.0	174.5	- 27.2	
1975	23,044.4	70.7	...	117.2	7.9	161.6	- 27.1	
1976	23,371.0	64.4	...	85.0	- 3.0	118.1	- 21.4	
1977	23,660.7	61.4	...	53.5	- 2.0	83.8	- 17.4	
1978	23,921.8	63.5	...	22.8	- 3.0	51.6	- 17.5	
1979	24,146.1	54.8	...	57.3	7.9	95.5	- 17.4	
1980	24,422.1	45.2	...	97.9	14.9	140.4	- 17.5	
1981	24,744.2	50.1	...	78.5	30.3	134.2	- 17.0	
1982	25,061.8	59.4	...	61.8	- 3.7	86.4	- 16.6	
1983	25,330.3	58.6	...	30.6	4.4	61.7	- 16.5	
1984	25,574.7	55.2	...	33.0	- 0.3	58.8	- 16.5	
1985	25,818.3	54.2	...	30.1	11.0	68.4	- 16.6	
1986	26,064.5	49.1	...	50.1	46.5	122.1	- 13.6	
1987	26,361.7	44.3	...	107.8	40.9	172.9	- 11.5	
1988	26,707.8	38.7	...	123.2	108.9	253.6	- 11.5	
1989	27,136.7	40.7	...	151.3	67.4	239.7	- 11.5	
1990	27,566.6	39.6	...	174.6	- 11.0	183.1	- 11.6	
1991	27,951.6	48.5	191.0	182.3	- 71.1	118.4 ⁶	- 4.7 ⁶	
1992 (PR)	28,272.2	48.5	249.1	200.2	- 84.3	115.9 ⁷	...	
1993 (PR)	28,593.4	...	...	...	...	...	...

¹ Based on Employment and Immigration Canada data. ² Estimates based on Family Allowance and Income Tax files. ³ Difference between immigrants and emigrants. The difference is statistical because landed immigrants from one year could have been in the country since the previous year or before and they were then counted as non-permanent residents. ⁴ The residual is made up of the distribution on five years of the error at the end of the census period. This error is equal to the difference between the expected number at the census by the components method and Census adjusted for net undercoverage. This error encompasses the errors on the components and on the Census adjusted for net undercoverage. ⁵ Before 1991 only the net migration can be estimated. ⁶ Returning Canadians for five months only (January to May); data not available for 1992. ⁷ The real increase is underestimated because the 1992 data for Returning Canadians are not available. (PR): Updated postcensal estimates, based on 1991, as of October 13, 1993. **Note:** All other data are based on final intercensal estimates. Births and deaths were extracted from Vital Statistics publications. Calculations based on unrounded data. **Source:** Statistics Canada, Demography Division.

Table 1B. Main Rates of the Demographic Accounts, Canada, 1972-1993 (per thousands)

Year	Population as of January 1	Total Growth Rate	Birth Rate	Mortality Rate	Natural Increase Rate	Net International Migration Rate ¹	Growth Rate by Flow ³
1972	22,157.8	11.52	15.58	7.29	8.30	2.64	3.22
1973	22,414.5	13.46	15.22	7.27	7.95	4.68	5.51
1974	22,718.2	14.26	15.11	7.29	7.82	6.14	6.44
1975	23,044.4	14.07	15.48	7.20	8.28	5.05	5.80
1976	23,371.0	12.32	15.31	7.10	8.21	3.61	4.11
1977	23,660.7	10.97	15.22	7.04	8.18	2.25	2.79
1978	23,921.8	9.33	14.91	7.00	7.91	0.95	1.42
1979	24,146.1	11.37	15.08	6.93	8.15	2.36	3.22
1980	24,422.1	13.10	15.08	6.98	8.10	3.98	5.00
1981	24,744.2	12.75	14.91	6.87	8.05	3.15	4.71
1982	25,061.8	10.66	14.81	6.92	7.89	2.45	2.77
1983	25,330.3	9.60	14.68	6.86	7.83	1.20	1.78
1984	25,574.7	9.48	14.67	6.84	7.83	1.28	1.65
1985	25,818.3	9.49	14.48	6.99	7.49	1.16	2.00
1986	26,064.5	11.34	14.23	7.03	7.20	1.91	4.14
1987	26,361.7	13.04	13.93	6.97	6.96	4.06	6.08
1988	26,707.8	15.93	14.00	7.06	6.94	4.58	8.99
1989	27,136.7	15.72	14.36	6.98	7.37	5.53	8.34
1990	27,566.6	13.87	14.61	6.92	7.69	6.29	6.18
1991	27,951.6	11.40	14.32	6.96	7.36	6.48	4.04 ²
1992 (PR)	28,272.2	11.30	14.22	7.00	7.22	7.04	4.08 ²
1993 (PR)	28,593.4	...	...	...	...	...	...

¹ Based on Employment and Immigration Canada data and estimates based on Family Allowance and Income Tax files.

² Returning Canadians for 1991 are only available from January to May and data are not available for 1992.

³ Takes into account Non-permanent Residents, Returning Canadians and residual.

(PR): Revised postcensal data, based in 1991, as of October 13, 1993.

Note: All other data are based on final intercensal estimates. Births and deaths were extracted from Vital Statistics publications. Calculations based on unrounded data.

Source: Statistics Canada, Demography Division.

Overall Impression

It would appear that the estimate of entries by flow seems overly high, since natural increase is basically unquestionable and the sum of entries by flow and natural increase yields a residual surplus to balance out total increase.

Due no doubt to the economic situation, there were apparently more non-permanent residents leaving than arriving, particularly in 1991 and 1992. Moreover, the significant inflows of 1988 and 1989 were due to a large surplus of non-permanent residents, which in turn was caused by a large number of refugees whose applications were pending and who thus had obtained temporary residence permits. Phenomena like these went unnoticed in the old accounts since non-permanent residents were not taken into account.

**Summary Table. Rates and Principal Demographic Indicators, Canada,
Provinces and Territories, 1985-1991**

	Year	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Birth Rate (per 1,000)	1985	14.6	15.7	14.0	13.9	12.9	14.2
	1986	14.0	15.0	13.9	13.5	12.6	14.1
	1987	13.5	15.2	13.5	13.1	12.3	13.9
	1988	13.0	15.2	13.5	13.1	12.6	14.0
	1989	13.4	14.8	13.8	13.1	13.3	14.3
	1990	13.1	15.4	14.1	13.2	14.0	14.6
	1991	12.4	14.4	13.1	12.7	13.7	14.5
Mortality Rate (per 1,000)	1985	6.1	8.7	8.2	7.2	6.8	7.2
	1986	6.1	8.7	8.1	7.5	7.0	7.2
	1987	6.3	8.6	7.9	7.4	7.0	7.0
	1988	6.2	8.6	8.2	7.4	7.0	7.2
	1989	6.4	8.3	8.3	7.4	7.0	7.0
	1990	6.7	8.7	8.1	7.3	6.9	6.8
	1991	6.5	9.1	7.9	7.3	6.9	7.0
Total Fertility Rate (number of children per woman aged 15-49)	1985	...	1.86	1.60	1.57	1.40	1.60
	1986	...	1.78	1.58	1.53	1.37	1.60
	1987	1.53	1.82	1.55	1.51	1.37	1.58
	1988	1.47	1.85	1.57	1.53	1.43	1.59
	1989	1.53	1.83	1.62	1.55	1.53	1.63
	1990	1.52	1.93	1.68	1.58	1.64	1.67
	1991	1.44	1.85	1.58	1.54	1.65	1.66
Total First Marriage Rate (per 1,000) ^{1,2} (Males aged 17-49, Females aged 15-49)	1985 M	555	723	651	659	488	695
	F	532	731	662	669	515	708
	1986 M	615	740	630	638	462	681
	F	600	765	650	653	460	698
	1987 M	623	691	651	632	449	688
	F	596	701	672	646	457	718
	1988 M	657	741	671	687	460	705
	F	634	747	710	711	488	761
	1989 M	689	795	674	678	461	727
	F	678	796	707	705	479	770
	1990 M	668	755	626	651	438	725
	F	664	753	662	682	481	769
	1991 M	609	690	578	593	400	666
	F	606	699	611	620	443	705
Rate of Natural Increase (per 1,000)	1985	8.5	7.0	5.8	6.7	6.1	7.0
	1986	8.0	6.3	5.7	6.0	5.6	7.0
	1987	7.3	6.5	5.6	5.7	5.3	6.9
	1988	6.8	6.7	5.3	5.7	5.7	6.8
	1989	7.1	6.5	5.5	5.7	6.3	7.3
	1990	6.4	6.7	6.0	5.9	7.1	7.8
	1991 (PR)	5.9	5.3	5.2	5.4	6.8	7.5
	1992 (PR)	6.2	5.1	4.9	5.3	6.6	7.5
Total Growth Rate (per 1,000)	1985	-3.6	6.9	5.4	2.8	6.0	14.2
	1986	-2.9	1.2	4.9	1.8	8.9	18.4
	1987	-2.1	5.8	3.5	4.2	8.7	21.3
	1988	1.6	6.8	6.4	5.5	11.2	23.8
	1989	1.2	2.6	7.2	6.6	10.5	21.6
	1990	2.4	1.4	5.9	8.0	9.9	16.0
	1991 (PR)	1.7	-8.3	5.1	2.3	9.6	13.0
	1992 (PR)	-0.2	9.2	1.9	1.6	9.2	12.9

See notes at the end of this table.

**Summary Table. Rates and Principal Demographic Indicators, Canada,
Provinces and Territories, 1985-1991 - Continued**

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Birth Rate (per 1,000)	1985	15.8	17.7	18.2	14.4	18.8	26.1	14.5
	1986	15.5	17.0	17.9	13.9	19.5	27.2	14.2
	1987	15.4	16.4	17.2	13.6	18.4	27.4	13.9
	1988	15.4	16.2	17.1	13.7	19.4	27.6	14.0
	1989	15.7	16.3	17.3	13.6	17.5	25.7	14.3
	1990	15.7	15.9	16.8	13.8	19.8	26.7	14.6
	1991	15.5	15.2	16.4	13.5	19.5	26.7	14.3
Mortality Rate (per 1,000)	1985	8.1	7.8	5.5	7.1	5.0	3.9	7.0
	1986	8.1	7.8	5.6	7.0	4.6	4.2	7.0
	1987	7.9	7.5	5.4	7.1	4.2	3.5	7.0
	1988	8.2	7.9	5.6	7.2	5.1	3.9	7.1
	1989	8.0	7.7	5.5	7.2	3.5	4.3	7.0
	1990	8.0	8.0	5.5	7.1	4.1	3.8	6.9
	1991	8.0	8.0	5.6	7.1	3.9	3.9	7.0
Total Fertility Rate (number of children per woman aged 15-49)	1985	1.85	2.08	1.86	1.65	1.83	2.66	1.61
	1986	1.83	2.02	1.85	1.61	1.92	2.81	1.59
	1987	1.83	1.98	1.82	1.60	1.88	2.82	1.58
	1988	1.85	1.99	1.84	1.64	1.98	2.90	1.60
	1989	1.92	2.05	1.90	1.65	1.85	2.70	1.66
	1990	1.95	2.07	1.88	1.68	2.15	2.79	1.71
	1991	1.96	2.02	1.89	1.67	2.14	2.86	1.70
Total First Marriage Rate (per 1,000) ^{1,2} (Males aged 17-49, Females aged 15-49)	1985 M	690	634	605	638	588	348	615
	F	701	659	656	665	588	395	638
	1986 M	662	621	604	636	525	385	608
	F	687	654	643	670	604	424	620
	1987 M	659	624	603	662	493	343	606
	F	686	657	640	692	513	377	629
	1988 M	655	632	641	705	574	349	627
	F	700	677	696	756	696	343	657
	1989 M	657	653	673	712	535	349	642
	F	697	695	702	748	599	361	675
	1990 M	664	633	669	701	547	363	631
	F	706	673	710	745	629	372	674
	1991 M	613	626	628	658	517	343	584
	F	656	652	666	699	544	353	623
Rate of Natural Increase (per 1,000)	1985	7.7	9.9	12.7	7.3	13.9	22.3	7.5
	1986	7.4	9.2	12.4	6.9	14.8	23.0	7.2
	1987	7.5	8.9	11.8	6.5	14.3	23.9	7.0
	1988	7.2	8.4	11.4	6.5	14.5	23.7	6.9
	1989	7.7	8.6	11.8	6.5	14.0	21.4	7.4
	1990	7.7	8.0	11.3	6.7	15.7	22.9	7.7
	1991 (PR)	7.5	7.2	10.9	6.4	15.7	22.9	7.4
	1992 (PR)	7.4	7.1	10.7	6.1	14.9	21.4	7.2
Total Growth Rate (per 1,000)	1985	8.7	6.4	9.1	9.6	9.7	19.5	9.5
	1986	6.4	2.7	6.0	11.2	31.3	-1.8	11.3
	1987	4.8	-0.4	4.6	18.8	28.1	11.5	13.0
	1988	1.7	-7.9	14.3	23.6	36.0	19.6	15.9
	1989	1.3	-10.4	17.9	27.4	23.6	23.4	15.7
	1990	3.2	-8.3	20.3	26.6	22.9	31.8	13.9
	1991 (PR)	1.8	-3.0	14.0	21.3	36.9	26.8	11.4
	1992 (PR)	2.1	-1.0	11.3	23.6	55.3	10.6	11.3

See notes at the end of this table.

**Summary Table. Rates and Principal Demographic Indicators, Canada,
Provinces and Territories, 1985-1991 - Continued**

	Year	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Population Aged 65 + as a Percentage of the Total Population on July 1	1985	8.5	12.5	11.5	10.7	9.5	10.5
	1986	8.7	12.6	11.8	11.0	9.8	10.7
	1987	9.0	12.7	12.0	11.2	10.0	10.9
	1988	9.1	12.8	12.1	11.5	10.3	11.0
	1989	9.3	12.9	12.2	11.6	10.5	11.1
	1990	9.4	13.0	12.3	11.8	10.8	11.3
	1991 (PR)	9.6	13.1	12.4	11.9	11.0	11.5
	1992 (PR)	9.7	13.2	12.6	12.1	11.2	11.7
Total Age Dependency Ratio (in %) ³	1985	69.4	69.2	61.5	63.0	52.2	55.0
	1986	67.9	68.4	60.9	62.2	52.0	54.9
	1987	66.3	68.0	60.7	62.0	52.0	54.9
	1988	64.7	67.6	60.3	61.4	52.1	54.9
	1989	62.9	67.4	59.6	60.7	52.2	54.6
	1990	61.2	67.3	59.2	60.1	52.7	54.9
	1991 (PR)	59.6	67.1	58.9	59.6	53.4	55.5
	1992 (PR)	58.4	67.0	58.8	59.1	53.9	56.1
Life Expectancy at Birth (in years) ²	1981 M	72.0	72.8	71.0	71.1	71.1	72.3
	F	78.7	80.5	78.4	79.2	78.7	79.0
	1988 M	73.1	73.1	72.5	73.0	72.3	73.7
	F	79.3	80.9	79.6	80.2	79.8	80.0
	1989 M	73.1	72.9	72.8	73.3	72.7	74.1
	F	79.2	80.8	79.7	80.4	80.2	80.3
	1990 M	73.3	72.6	73.2	73.7	72.9	74.3
	F	79.4	80.8	80.0	80.5	80.5	80.4
Infant Mortality Rate (per 1,000)	1991 M (P)	73.5	72.5	73.6	74.0	73.2	74.6
	F (P)	79.6	80.6	80.4	80.8	80.7	80.6
	1985	10.8	4.0	7.9	9.6	7.3	7.3
	1986	8.0	6.7	8.4	8.3	7.1	7.2
	1987	7.6	6.6	7.4	7.0	7.1	6.6
	1988	9.3	7.1	6.5	7.2	6.5	6.6
	1989	8.2	6.2	5.8	7.1	6.8	6.8
	1990	9.2	6.0	6.3	7.2	6.2	6.3
Rate of Pregnancies Terminated (per 1,000 women aged 15-44) ⁴	1991	7.8	6.9	5.7	6.1	5.9	6.3
	1985	2.9	0.4	8.0	1.8	9.8	12.0
	1986	2.5	0.4	7.9	2.0	9.6	11.6
	1987	3.3	1.2	7.8	2.0	10.1	11.8
	1988	3.3	2.3	8.0	2.7	11.0	12.0
	1989	3.2	0.3	9.3	2.8	11.2	12.7
	1990	3.6	1.7	8.9	3.0	13.8	15.9
	1991	5.7	0.8	10.6	3.3	13.7	16.4

See notes at the end of this table.

Summary Table. Rates and Principal Demographic Indicators, Canada, Provinces and Territories, 1985-1991 - Concluded

	Year	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
Population Aged 65 + as a Percentage of the Total Population on July 1	1985	12.2	12.4	7.8	11.5	3.6	2.8	10.2
	1986	12.4	12.6	7.9	11.9	3.7	3.0	10.5
	1987	12.6	12.8	8.3	12.2	3.8	2.9	10.7
	1988	12.8	13.0	8.5	12.4	3.7	3.0	10.9
	1989	13.0	13.4	8.6	12.5	3.8	2.8	11.0
	1990	13.1	13.7	8.8	12.6	3.8	2.7	11.2
	1991 (PR)	13.3	14.0	8.9	12.6	3.9	2.7	11.4
	1992 (PR)	13.4	14.2	9.1	12.8	3.9	2.7	11.6
Total Age Dependency Ratio (in %) ³	1985	64.0	70.3	55.9	56.9	50.5	68.9	56.3
	1986	63.8	70.5	56.0	57.2	50.0	68.4	56.1
	1987	64.1	70.8	56.6	57.5	49.5	67.7	56.2
	1988	64.3	71.1	56.8	57.4	48.1	67.1	56.2
	1989	64.6	71.8	56.9	57.4	47.9	66.4	56.0
	1990	65.0	72.9	57.3	57.5	47.9	65.9	56.3
	1991 (PR)	65.3	73.5	57.7	57.6	47.6	66.7	56.7
	1992 (PR)	65.7	74.0	58.2	57.8	47.8	67.4	57.1
Life Expectancy at Birth (in years) ²	1981 M	72.2	72.4	72.0	72.6	...	...	71.9
	F	78.8	79.6	79.1	79.6	...	...	79.0
	1988 M	73.4	74.2	73.9	74.0	...	...	73.3
	F	80.2	81.0	80.3	80.5	...	...	80.0
	1989 M	73.7	74.4	74.2	74.4	...	...	73.7
	F	80.4	81.2	80.7	80.7	...	...	80.4
	1990 M	74.2	74.7	74.5	74.6	...	...	73.9
	F	80.5	81.2	80.9	80.9	...	...	80.5
	1991 M (P)	74.4	74.9	74.7	74.9	...	...	74.2
	F (P)	80.6	81.3	81.1	81.2	...	...	80.7
Infant Mortality Rate (per 1,000)	1985	9.9	11.0	8.0	8.1	10.8	16.7	7.9
	1986	9.2	9.0	9.0	8.5	24.8	18.6	7.9
	1987	8.4	9.1	7.5	8.6	10.5	12.5	7.3
	1988	7.8	8.4	8.3	8.4	5.8	10.3	7.2
	1989	6.6	8.0	7.5	8.2	4.2	16.2	7.1
	1990	8.0	7.6	8.0	7.5	7.2	12.0	6.8
	1991	6.5	8.2	6.7	6.5	10.6	11.6	6.4
Rate of Pregnancies Terminated (per 1,000 women aged 15-44) ⁴	1985	9.1	5.1	10.7	15.7	14.2	18.2	10.7
	1986	10.1	4.5	10.1	15.7	17.6	17.6	10.5
	1987	10.3	5.3	8.9	15.6	20.1	17.5	10.6
	1988	11.0	5.6	10.2	14.8	16.0	19.5	11.0
	1989	10.8	5.9	10.5	14.6	18.3	17.8	11.4
	1990	14.0	6.0	10.4	16.2	18.7	22.1	13.6
	1991	13.7	5.9	10.7	16.2	18.7	21.3	13.9

¹ The rates are calculated using the average estimations of the population as of January 1, for successive years.

² Calculated with former estimates.

³ Ratio between population aged 0-17, 65+ and 18-64.

⁴ From 1985 to 1989, for all provinces except Quebec, the rates only cover therapeutic abortions in canadian hospitals. For 1990 and 1991, the rates include abortions made in hospitals and clinics. From 1985 to 1991, the rates for Quebec are calculated with all known abortions (Régie de l'assurance maladie du Québec).

(P) Preliminary.

(PR) Revised postcensal data, based on 1991 Census, October 13, 1993.

Note: For the years 1981-1987, see the 1988 Report.

Overall, the basic indicators tend to paint a relatively stationary picture of the country over the past two decades. In the case of the death rate, the stability observed in place of the normally anticipated increase is a sign of progress in the fight against death, since the population has aged considerably since 1972. Also noteworthy was the reduction in the emigration rate, particularly in recent years when immigration was on the rise. Weakening of the volume and rate of emigration coupled with an increase in immigration is indicative of a particularly difficult change in the world economic and political situation and in the origin of immigrants, a large proportion of whom are now refugees who are little inclined to return to their country or go elsewhere.

The Provinces (Appendix Tables A1)

This 1.13% national increase was far from uniform across the country. The hardest-hit province was *Saskatchewan, which has been losing population since 1987*. The new estimates nevertheless still rank it as a “millionaire”, a category it would have reached in 1984 and not 1985 as previously calculated, and not dropped out of, even though the former estimates indicated that it lost this title in 1990. The negative growth was due to interprovincial migration. Natural increase and net international migration were positive, but are eclipsed by the deficit in interprovincial migration and, to a certain extent, by that of non-permanent residents.

In terms of volume, Ontario gained the most (136,700 people), or 43% of total national growth. In second place was British Columbia with a quarter of the country's growth (81,500 people), followed by Quebec and Alberta (20% and 9%). In terms of rates, however, British Columbia ranked first with 2.36%, while Ontario lagged far behind with only 1.29%. Quebec's growth rate was only 0.9% and that of Alberta 1.13%. The other provinces had only minimal growth. Natural increase was on the decline nationally given the fact that the drop in fertility is increasingly paired with an aging of the female population of child-bearing age. Provinces that have chronic negative migratory balances, however, show the effects on total growth to a greater extent. This was the case with the Atlantic Provinces where growth was practically negligible. In the last 20-year, the rate of natural increase dropped by half in New Brunswick, 40% in Nova Scotia and Prince Edward Island and 65% in Newfoundland. In Quebec and Alberta, the rate remained stable, fell by only 10% in Ontario, 14% in British Columbia, 19% in Manitoba and 17% in Saskatchewan.

This series of phenomena contributes to a concentration of the Canadian population in a few fairly limited areas, particularly southern Quebec and Ontario and southern British Columbia – while in most of Canada the population remains sparse.

CANADA IN THE WORLD

Canada ranked 29th in the world in terms of population in 1950, slipping to 31st place in 1984. In 1991, it was in 33rd place. The two countries current ranking above it are the Ukraine and Tanzania.

The dismantling of the U.S.S.R. that began in 1984 has brought several minor changes in this list. The sum of the former components would still place the group in 3rd place, with 291,245 million; however this rank is currently held by the United States since the two principal components of the U.S.S.R. (Russia and the Ukraine) are in 6th and 23rd place respectively.

Certain countries, however, experienced such growth that they out-stripped others that, only 10 years ago, placed ahead of them. Among these are Ethiopia, which rose from 26th to 22nd, Turkey, which went from 19th to 15th and the Philippines (from 17th to 14th). Others consequently, like Canada, lost ground: among these were Italy, which fell from 14th to 17th place, France from 16th to 18th, the United Kingdom from 15th to 16th, the Republic of Korea from 22nd to 24th, Spain from 23rd to 26th and Poland from 25th to 27th.

One remarkable phenomenon was the slowdown in annual rate of increase for the majority of the 33 countries in Table 2, which are nevertheless drawn from highly differing categories of development.

CANADA AND THE PRINCIPAL INDUSTRIALIZED COUNTRIES

During 1992, the population of Canada grew over three times more rapidly than that of the E.E.S. (European Economic Space) (11.3 per 1,000 compared to 3.6 per 1,000). *The rate of natural increase in the European Community (E.C.) was 1.5 per 1,000, while that of Canada was 7.2 per 1,000. Growth due to migration was 2.1 per 1,000 in Europe and 4.1 per 1,000 in Canada.*

An examination of Table 3 may raise some confusion. For many countries, including Canada, the total increase does not correspond, as might be expected, to the sum of natural increase and net migration. This is because in many cases net migration is determined solely by the difference between the number of international immigrants and emigrants, while other entries and errors are not taken into consideration.

Based on data supplied by the countries involved, there were no significant changes in the demographic behaviour of any of the industrialized countries.

On the basis of the total fertility rate, the trend in fertility is still minimally down in Europe. For most countries, the rate is stationary, but the Mediterranean peninsulas are still going through a period of major liberalization in laws

Table 2. Countries with a Larger Population than Canada, 1950, 1984 and 1991

1950			1984			1991				
Country	Population (in thousands)	Rank	Country	Population (in thousands)	Rank	Average Annual Increase Rate 1974-1984 (per 1,000)	Country	Population (in thousands)	Rank	Average Annual Increase Rate 1980-1991 (per 1,000)
World	2,504,000	...	World	4,763,000	...		World	5,292,000	...	
China	463,500	1	China	1,051,550	1	24.6	China	1,155,790 ²	1	13.0
India	358,000	2	India	746,740	2	24.5	India	849,638 ¹	2	22.7
U.S.S.R.	193,000	3	U.S.S.R.	275,000	3	8.7	United States	252,688	3	9.5
United States	151,689	4	United States	236,680	4	11.1	Indonesia	187,765 ²	4	20.0
Japan	82,900	5	Indonesia	159,900	5	22.8	Brazil	153,322 ¹	5	21.5
Pakistan	75,040	6	Brazil	132,580	6	24.3	Russia	149,000 ¹	6	...
Indonesia	73,500	7	Japan	120,020	7	9.1	Japan	123,921 ¹	7	5.4
Brazil	52,124	8	Bangladesh	96,730	8	25.8	Bangladesh	118,745 ²	8	26.9
United Kingdom	50,616	9	Pakistan	93,290	9	31.8	Pakistan	115,524 ¹	9	31.5
West Germany	47,607	10	Nigeria	92,040	10	41.5	Nigeria	112,163 ²	10	30.5
Italy	46,272	11	Mexico	76,790	11	28.3	Mexico	87,836 ¹	11	21.7
France	41,934	12	West Germany	61,180	12	-1.4	Germany ⁵	80,334 ¹	12	3.7
Rep. of Korea	29,500	13	Vietnam	58,300	13	-	Vietnam	68,183 ²	13	21.9
Spain	28,287	14	Italy	56,980	14	2.9	Philippines	62,868 ¹	14	24.6
Mexico	25,368	15	United Kingdom	56,490	15	0.9	Turkey	60,777	15	28.9
Vietnam	25,000	16	France	54,940	16	4.5	United Kingdom	57,367 ²	16	2.3
Poland	24,977	17	Philippines	53,350	17	25.5	Italy	57,052 ²	17	-0.0
Nigeria	24,000	18	Thailand	50,400	18	20.8	France	57,049 ¹	18	5.5
Turkey	20,935	19	Turkey	48,260	19	23.5	Thailand	56,923 ¹	19	18.6
Egypt	20,439	20	Egypt	45,660	20	22.9	Iran	55,762 ¹	20	34.6
Philippines	19,557	21	Iran	43,410	21	30.5	Egypt	54,609 ¹	21	23.5
Iran	18,772	22	Rep. of Korea	40,580	22	19.5	Ethiopia	53,383 ¹	22	50.5
Burma	18,489	23	Spain	38,720	23	9.5	Ukraine	52,000 ¹	23	...
Thailand	18,313	24	Burma	37,610	24	21.8	Rep. of Korea	43,268 ¹	24	11.6
Argentina	17,196	25	Poland	36,910	25	9.2	Myanmar ⁴	42,561 ²	25	21.6
Yugoslavia	16,250	26	Ethiopia	35,420	26	26.6	Spain	39,025	26	3.8
Romania	16,094	27	Zaire	32,080	27	28.5	Poland	38,244 ¹	27	6.6
Ethiopia	15,000	28	South Africa	31,590	28	24.0	Zaire	36,672 ¹	28	30.4
Canada	13,845	29	Argentina	30,100	29	18.5	South Africa	36,070 ²	29	21.3
			Colombia	28,220	30	16.5	Colombia	33,613 ²	30	19.8
			Canada	25,150	31	11.3	Argentina	32,713 ¹	31	13.5
							Tanzania ³	28,359 ²	32	39.2
							Canada	26,992 ¹	33	10.6

¹ Preliminary. ² Estimates established by the Population Division of the United Nations. ³ On April 26, 1964, Tanganyika and Zanzibar merged to form the United Republic of Tanzania. ⁴ Formerly Burma. ⁵ The average annual increase rate of 1980-1991 includes only West Germany. Source: Demographic Yearbooks, United Nations.

Table 3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992

Country	Population as of January 1, 1992	Population as of January 1, 1993	Births		Deaths		Natural Increase		Net Migration	
			1991	1992	1991	1992	1991	1992	1991 ¹	1992
			(in thousands)							
Belgium	10,022.0	10,068.3	126.1	125.1	105.2	105.7	20.9	19.4	14.1 ^a	25.4
Denmark	5,162.1	5,180.6	64.5	67.8	59.5	60.8	5.0	7.0	10.9	11.5
Germany	80,170.0	80,614.1	828.3	805.8	900.8	881.2	-72.5	-75.5	490.0	345.0
Greece	10,250.0	10,320.0	100.0	104.0	93.5	98.0	6.5	6.0	43.5	35.0
Spain	39,055.9	39,114.2	386.5	381.3	338.2	341.1	48.3	40.2	13.8 ^a	18.1
France	57,206.2	57,526.6	758.4	742.8	526.0	523.0	232.4	219.8	80.0	90.0
Ireland	3,532.0	3,556.5 ^a	52.7	51.6	31.5	30.8	21.2	20.8	-8.0 ^a	-6.0
Italy	57,788.2	56,932.7 ^s	558.8	561.3	546.9	547.1	11.9	14.2	34.9	89.2
Luxembourg	389.8	395.2	5.0	5.1	3.7	4.0	1.3	1.1	4.2	4.3
Netherlands	15,128.6	15,238.9 ⁶	198.6	196.7	129.9	129.9	68.7	66.8	62.8	57.9
Portugal	9,845.6	9,850.3	116.4	115.0	104.4	101.2	12.0	13.9	-25.0	-10.0
United Kingdom	57,642.0 ^a	57,959.0	792.5	781.0	643.1	634.2	149.4	146.8	6.8 ^a	59.0
EEC Members ^a	346,192.4	346,756.4	3,987.8	3,937.5	3,482.7	3,457.0	505.1	480.5	728.0	719.3
Austria ⁹	7,860.8	7,909.6	94.6	95.3	83.4	83.2	11.2	12.1	58.7	36.6
Finland ⁹	5,029.3	5,055.0	65.7	66.7	49.1	49.5	16.6	17.2	13.8	8.8
Iceland ⁹	259.7	262.4	4.5	4.6	1.8	1.8	2.7	2.8	1.0	-0.3
Norway ⁹	4,273.6	4,299.2	60.8	60.1	44.9	44.4	15.9	15.7	8.0	10.0
Sweden ⁹	8,644.1	8,692.0	123.6	122.7	95.0	94.7	28.6	28.0	25.0	19.6
Switzerland ¹²	6,831.9	6,908.0	85.7	86.9	62.5	62.3	23.2	24.6	56.9	-24.6 ¹¹
Liechtenstein ⁹	29.4	29.9	0.4	0.4 ¹	0.2	0.2 ¹	0.2	0.2 ¹	0.0	0.4 ¹
EFTA ^{a,9}	32,928.8	33,156.1	435.3	436.7	336.9	336.1	98.4	100.6	163.5	75.4
EEA ^a	379,121.2	379,912.5	4,423.1	4,374.2 ^a	3,819.6	3,793.1	603.5	581.1	891.5	794.7
Canada	28,272.2	28,593.4	402.5	404.3	195.6	199.0	206.9	205.3	182.3	200.2
United States	253,668.0	256,899.0	4,111.0	4,084.0	2,165.0	2,177.0	1,946.0	1,907.0	857.0	990.0 ¹⁰
Mexico	87,241.4	..	2,461.8	2,646.0	481.5	411.1	1,980.3	2,234.9	-143.6	..
North America	369,181.6	285,492.4	6,975.3	7,134.3	2,842.1	2,787.1	4,133.2	4,347.2	..	..
Australia	17,414.3	17,568.7	256.8	264.2	118.9	123.7	137.9	140.5	81.7	44.5
New-Zeland	3,449.6	3,485.4	60.2	59.3	26.5	27.2	33.7	32.0	4.3	3.8
Japan	124,000.0	124,400.0	1,223.2	1,209.0	829.5	855.4	393.7	353.5	257.7 ⁷	225.9 ⁸

See notes at the end of this table.

Table 3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992 - Continued

Country	Total Growth Rate (per 1,000)		Infant Mortality Rate (per 1,000 live births)		Life Expectancy ⁵ 1991		Life Expectancy ² 1992	
	1991	1992	1991	1992	Males	Females	Males	Females
Belgium	3.5	4.6	8.4	8.2	72.74,a	79.44,a	72.81,a	79.51,a
Denmark	3.1	3.6	7.34	7.31	72.04,a	77.74,a	72.51,a	78.01,a
Germany	5.2	3.3	7.2a	6.91	...	...	72.11,a	78.71,a
Greece	4.9	4.0	10.0	8.2	73.64	78.64	74.61,a	79.81,a
Spain	1.6	1.5	7.8	7.9	73.44,a	80.14,a	73.31,a	80.31,a
France	5.5	5.4	7.4	7.3	73.0	81.1	73.1	81.3
Ireland	3.7	4.2	8.2	6.6	71.94,a	77.44,a	71.0	76.7
Italy	0.8	1.8	8.3	8.3	73.24,a	79.74,a	74.03,a	80.43,a
Luxembourg	14.0	13.8	9.2	8.5	72.34,a	78.54,a	72.01,a	79.11,a
Netherlands	8.7	8.2	6.5	6.3	73.7	79.8	74.3	80.3
Portugal	-1.3	0.4	10.8	9.3	70.24,a	77.34,a	69.81,a	77.31,a
United Kingdom	2.7a	3.6	7.3	7.0	72.94,a	78.54,a	73.21,a	78.61,a
EEC Members ^a	3.6	3.5	7.7	7.4a	72.72	79.32	72.83,a	79.43,a
Austria ⁹	8.9	6.2	7.5	7.5	72.6	79.2	72.9	79.4
Finland ⁹	6.1	5.2	5.8	5.81	70.94	78.94	71.31,a	79.31,a
Iceland ⁹	14.5	10.3	5.5	5.51	75.74	80.34	75.11,a	80.81,a
Norway ⁹	5.6	5.6	6.94	6.41	73.44	79.84	74.01,a	80.11,a
Sweden ⁹	6.2	6.2	6.1	5.4	75.0	80.5	75.3	80.8
Switzerland ¹²	11.8	11.1	6.9	6.4	74.06	80.86	74.3	81.2
Leichtenstein ⁹	8.7	1.7	..	5.4	69.5	73.6	69.51,a	73.61,a
EFTA ^{a,9}	8.0	5.8	6.6	..	73.5	79.9	..	..
EEA ^a	4.0	3.6	7.6	7.3a	72.8	79.4	72.93,a	79.53,a
Canada	11.4	11.3	7.0	6.41	74.0	80.6	74.21	80.71
United States	11.0	11.0	9.2	8.5	..	..	72.27	79.17
Mexico	21.5	..	37.0	..	66.54	73.14	67.0	73.7
North America	...	...	...	...	...	...	...	...
Australia	14.2	10.6	7.2	7.0	73.9	80.0	74.4	80.3
New-Zealand	11.5	9.1	8.3	7.3	71.94	78.04	71.91	78.01
Japan	3.3	3.2	4.4	4.5	76.1	82.1	76.2	82.2

See notes at the end of this table.

Table 3. Main Demographic Indicators, by Industrialised Country, 1991 and 1992 - Concluded

Country	Total Fertility Rate		Marriages 1991		Marriages 1992		Divorces 1991		Divorces 1992	
	1991	1992	Marriages (in thousands)	Rate (per 1,000)	Marriages (in thousands)	Rate (per 1,000)	Divorces (in thousands)	Rate (per 1,000)	Divorces (in thousands)	Rate (per 1,000)
Belgium	1.57	1.56	60.8	6.1	58.3	5.8	20.8	2.1	22.3	2.2
Denmark	1.68	1.77 ^a	30.9	6.0	32.3	6.2	12.6	2.5	13.0	2.5
Germany	1.35 ^a	1.30 ^a	453.3	5.7	452.1	5.6	176.7 ³	2.2 ³	136.3 ¹	1.7 ¹
Greece	1.40	1.41	62.0	6.1	50.0	4.9	6.0	0.6	6.5	0.6
Spain	1.28	1.23	219.8	5.6	215.1	5.5	23.1 ³	0.6 ³	23.1 ⁴	0.6 ⁴
France	1.77	1.73	280.5	4.9	269.9	4.7	105.8 ⁴	1.9 ⁴	108.1 ¹	1.9 ¹
Ireland	2.18	2.11	16.9	4.8	16.1	4.5	..	..	..	..
Italy	1.26	1.26	309.1	5.4	306.9	5.4	26.5	0.5	24.0	0.4
Luxembourg	1.64 ^a	1.65 ^a	2.6	6.7	2.5	6.4	0.8	2.0	0.8 ¹	2.0 ¹
Netherlands	1.61	1.59	94.9	6.3	93.6	6.2	28.0	1.9	30.1	2.0
Portugal	1.42 ^a	1.48	71.8	7.3	69.9	7.1	10.6	1.1	12.4	1.3
United Kingdom	1.82 ^a	1.80 ^a	390.0 ^a	6.8 ^a	375.4 ³	6.5 ³	167.5 ⁴	2.9 ⁴	165.7 ³	2.9 ³
EEC Members ^a	1.55	1.48 ^a	1,992.6	5.8	1,942.1	5.6	578.4	1.7	542.3 ^{1,a}	1.6 ¹
Austria ⁹	1.50	1.51	44.1	5.6	45.7	5.8	16.4	2.1	16.3	2.1
Finland ⁹	1.71	1.86	23.6	4.7	23.0	4.6	12.8	2.6	12.8	2.5
Iceland ⁹	2.19	2.22	1.2	4.8	1.2	4.6	0.5	2.1	0.5 ¹	1.9 ¹
Norway ⁹	1.92 ^a	1.88	20.3	4.8	19.3	4.5	10.3	2.4	10.2	2.4
Sweden ⁹	2.10	2.09	35.9	4.2	37.1	4.3	19.5	2.3	21.9	2.5
Switzerland ¹²	1.60 ^a	1.58	46.3	6.8	45.1	6.6	13.7	2.0	14.5	2.1
Leichtenstein ⁹	..	..	0.4	12.1	0.2 ¹	6.7 ¹	0.0	1.2	0.0 ¹	1.2 ¹
EFTA ^{a,9}	1.79	..	171.8	5.2	171.6	5.2	73.2	2.2	76.2	2.3
EEA ^a	1.57	1.49	2,164.4	5.7	2,113.7 ^a	5.6 ^a	651.6	1.7	618.5 ^{1,a}	1.6 ^{1,a}
Canada	1.70	..	188.7	6.6	168.9	5.9	78.0	2.8	..	..
United States	2.01 ³	2.08 ¹	2,371.0	9.4	2,362.0	9.3	1,187.0	4.7	1,215.0	4.8
Mexico	3.29	..	652.4	7.5	650.0	..	49.2	0.6	49.1	..
North America	..	..	..	..	..	..	..	..	..	..
Australia	1.91	1.90	113.8	6.5	114.8	6.6	45.6	2.6	45.7	2.6
New-Zealand	2.16	2.12	23.1	6.7	22.0	6.3	9.1	2.6	9.1	2.6
Japan	..	1.50	742.3	6.0	754.4	6.1	168.9	1.4	179.2	1.4

Note: E.F.T.A.: Economic Free Trade Association.

E.E.A.: European Economic Area.

E.E.C.: European Economic Community.

Notes for 1992

Notes for 1991

Sources: For Europe: Eurostat.

For Canada: Statistics Canada.

For the United States: Census Bureau and N.C.H.S.

For Australia: Data communicated by the Australian Bureau of Statistics.

For New Zealand: Data communicated by the Department of Statistics.

For Japan: Statistical Standards Department.

For Mexico: Instituto Nacional de Estadística, Geografía e Informática.

For Switzerland (1992): Data obtained directly from Geneva.

a Eurostat estimates.

1 By difference between immigrants and

emigrants. 2 1988. 3 1989. 4 1990.

5 In years and tenth of a year. 6 Includes

administrative corrections. 7 Preliminary for 1991.

8 By difference between the ins and outs of foreigners.

9 Preliminary for 1992. 10 July 1st 1991 to July 1st 1992.

11 Calculations made by author. 12 Since 1992,

Switzerland is not part of the E.F.T.A.

governing divorce, abortion and contraception, and fertility rates are thus still quite low: 1.41, 1.23 and 1.26 for Greece, Spain and Italy, respectively. These rates are the result of delayed child-bearing by the younger birth cohorts at a time when older cohorts have very low fertility rates since they have already had all the children they wanted. The countries of northern Europe, however, have returned to total fertility rates closer to the cumulative fertility of participating birth cohorts since the effects of the change in tempo initiated some time ago are now dwindling. The new tempo of fertility has seemed to stabilize and is affected by the fairly late arrival of children. Thus, Finland had a total fertility rate of 1.86, Norway 1.88 and Sweden 2.09.

In absolute terms, Germany shows an increasingly negative natural increase because of an aging population whose fertility has long been low.

Portugal and Ireland were the only European countries with negative migration balances, while *Italy is increasingly a receiving country*. The position of Greece is uncertain, since the slight decline in net migration is not easy to explain and may be temporary. Admittance of expatriate Greeks and deportation of Albanians make for irregular trends in statistics.

In the great majority of industrialized countries, marriage was on the decline, while the divorce rate was generally up slightly. This slight change reflects the world economic situation, which is on the whole sombre enough to influence demographic phenomena.

On the other hand, *a great many countries showed a significant decrease in infant mortality rates between 1991 and 1992*.

Bearing in mind the reservations expressed regarding migration accounts, certain industrialized countries, which even quite recently had high immigration rates, tended to have positive but lower balances. This was the case of Germany and Austria and one receiving country, Australia. Since the ending of the “White Australia Policy”, this country, like Canada, has seen major fluctuations in its attitudes regarding immigration. The result has been that, within a few years, major flows have been seen in the number of landed immigrants and the origin of these immigrants. *Not only did the number of entries decrease in 1991, plans for 1992-93 forecast a much greater reduction, and low admission levels² are expected for several years to come*. The number of refugees admitted will be down by 2,000, skilled independent workers will decrease by 55% (to 13,400) and those in the concessional, or assisted, family category by 68% (to 6,000). The number of immigrants dropped from 136,000 in 1988-89 to 80,000 in 1992-93 – a decline of 41%.

² SOPEMI, 1992.

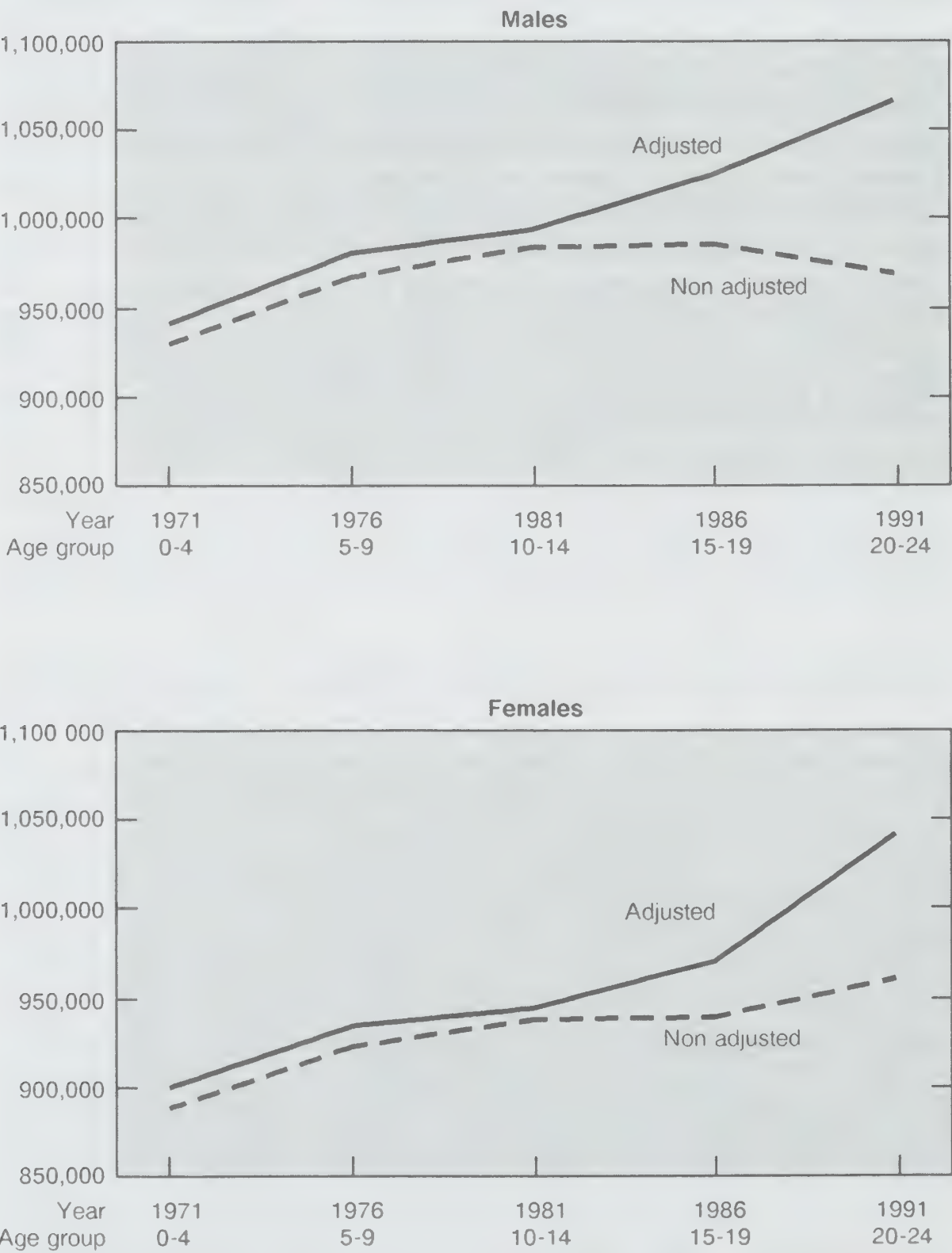
AUTONOMY OF POPULATION ESTIMATES

Background

Apart from providing justification for parliamentary representation of regions by the size of their population, Canada has over time set up a number of national programs aimed at an equitable redistribution of the country's wealth, also on the basis of the size of the sub-populations involved. This is one of the main reasons for the almost constant updating of population estimates at various geographical levels. These estimates are based on natural changes in population (births and deaths) and internal and international migratory flows. However carefully these estimates are calculated, they can only be based on an exhaustive counting of the entire population at a given moment in time, i.e., a census. This is one of the oldest institutions found in almost all countries. In Canada, censuses began centuries before the keeping of continuous accounts of demographic events. Occurring at intervals over time, they were until recently the only reliable way of determining the volume and structure of the country's population and its components. It should come as no surprise, then, that considerable care is taken in preparing a census, and a major operation in logistics goes into carrying it out. Societies change, however, and such phenomena as the increase in numbers, greater mobility of the population, and diminished concern by individuals for the interests of the group have hindered the taking of censuses in all countries, rendering the operation increasingly difficult despite advances in logistics.

The quality of enumeration of a census depends mainly on the extent of under-enumeration, but there are also cases of over-enumeration. Since the former is almost always greater than the latter, there is almost always a net under-enumeration. Under-enumeration is the result of inevitable weaknesses in the data-collection network, often exploited by those who, for whatever reason, wish not to be enumerated. Over-enumeration, on the other hand, is often due to a poor understanding by some people of the census process, with the result that they are counted twice. It may also be due to certain persons allowing themselves to be counted when they should not, while others may add fictitious individuals with a view to increasing the size of their category. An awareness of these imperfections has long motivated government agencies to produce estimates using various statistics-based processes. In Canada, the current Chief Statistician, Dr. Fellegi, began in 1961 to develop a means of checking the efficiency of the counting "machine", the reverse record check. Further improvements have been made to the system by Statistics Canada methodologists. We can thus determine, starting with the 1966 census, the extent to which census data for certain geographical areas and categories of people are over-estimated. This knowledge is nevertheless not reliable enough to make adjustments that cannot be questioned. To date, therefore, census figures have necessarily been used as a basis for post-census estimates and as limits to which inter-census estimates must be adjusted. From a legal standpoint and for

Figure 1
**Population of the 1967-1971 Birth Cohorts at Successive Censuses
Adjusted or Non Adjusted for Net Undercoverage, Canada**



Source: Demography Division, Estimates Section.

accounting purposes, the practice, for lack of a better system, has remained acceptable and accepted. From an analytical point of view, however, the inherent anomalies have always posed a problem. A comparison of numbers for one group of birth cohorts from census to census clearly shows up irregularities which can only be due to the incorrect enumeration of individuals in certain categories. For example, it is normal that the population aged 0-4 (Figure 1), augmented by immigrants during a five-year period, is larger five years later, when the children are in the 5-9 age group. It can be demonstrated that the numerical growth of these birth cohorts continues for the next ten years, but when they move from the 15-19 age group to the 20-24 group, the number of males decreases; however, this cannot be justified by either mortality or emigration, the extent of which are both known. Conversely, it may be satisfactorily explained by the still-significant under-enumeration of this particularly mobile group of young adults. It may also be seen that the corresponding group of female birth cohorts does not show the same anomaly in its changes over time, and this is quite in line with the knowledge we have of under-enumeration of women, which is lower than for males at these ages.

Improvement

A systematic study of the many irregularities of various types, of which the above case is an example, as well as progress by the methodologists at Statistics Canada in methods for calculating errors in enumeration, convinced the Chief Statistician that the population estimates based on them would certainly be improved if they took into consideration the measurable weaknesses in recent counts. *It also proved desirable to include in the population of the country not only returning Canadians, because of their increasing numbers since 1981, but particularly non-permanent residents*, which in any case is a United Nations requirement. Among these are of course refugees awaiting landed immigrant status, students and workers with visas long enough to entitle them for social programs and benefits. By including them in the accounts, the census remains a “de jure” census, since the people in question may be considered as habitual residents of Canada.

Census data are thus not adjusted and are always provided as is, but in 1991 non-residents have been added. For this reason, 1991 census figures are not directly comparable with those of previous censuses. *As for estimates, they will now take into account net under-enumeration and will be calculated on different dates from those of the census itself.* The annual estimates are now calculated on July 1, which corresponds to the middle of the year, as opposed to June 1 as was previously the case.

The result of this very long exercise is what is known as the new series of estimates used to construct the demographic accounts table. Thus, although estimates are always dependent on censuses, some distance has now been established between them and, unless otherwise specified, since September 16, 1993,

Table 4. Canadian Population by Cohort, Census Data Adjusted for Undercoverage

Age in 1971	Stocks				
	1971	1976 ¹	1981 ²	1986	1991
Males					
0-4	940,700	980,900	993,200	1,025,200	1,067,700
5-9	1,161,600	1,173,500	1,216,500	1,266,900	1,282,200
10-14	1,191,500	1,220,400	1,262,600	1,264,600	1,312,000
15-19	1,104,000	1,144,200	1,135,700	1,148,400	1,173,500
20-24	999,500	1,052,400	1,053,600	1,046,800	1,077,000
25-29	844,000	861,700	856,200	849,200	844,100
30-34	689,500	692,200	702,000	675,700	673,200
35-39	664,300	659,000	643,400	626,000	618,200
40-44	658,200	642,200	627,300	607,400	578,600
45-49	625,200	602,400	573,600	537,000	497,900
50-54	527,600	500,500	466,500	420,800	364,300
55-59	480,100	441,700	392,900	328,200	255,600
60-64	386,900	344,000	283,400	212,900	142,200
Females					
0-4	899,600	933,000	944,000	970,200	1,041,300
5-9	1,110,300	1,120,800	1,162,900	1,207,100	1,246,500
10-14	1,140,500	1,174,500	1,237,300	1,231,400	1,285,900
15-19	1,067,900	1,126,600	1,126,000	1,147,500	1,171,200
20-24	991,900	1,020,200	1,037,200	1,027,100	1,061,800
25-29	807,200	827,600	819,600	823,400	830,000
30-34	658,500	664,700	672,600	662,400	666,700
35-39	625,900	630,100	622,900	621,200	620,200
40-44	630,000	626,800	623,900	623,700	611,600
45-49	629,800	628,300	616,000	603,700	586,700
50-54	539,700	531,700	521,900	506,500	469,700
55-59	486,600	472,500	457,000	420,900	366,600
60-64	399,900	385,500	355,100	305,900	240,100
Both Sexes					
0-4	1,840,300	1,913,900	1,937,200	1,995,400	2,109,000
5-9	2,271,900	2,294,300	2,379,400	2,474,000	2,528,700
10-14	2,332,000	2,394,900	2,499,900	2,496,000	2,597,900
15-19	2,171,900	2,270,800	2,261,700	2,295,900	2,344,700
20-24	1,991,400	2,072,600	2,090,800	2,073,900	2,138,800
25-29	1,651,200	1,689,300	1,675,800	1,672,600	1,674,100
30-34	1,348,000	1,356,900	1,374,600	1,338,100	1,339,900
35-39	1,290,200	1,289,100	1,266,300	1,247,200	1,238,400
40-44	1,288,200	1,269,000	1,251,200	1,231,100	1,190,200
45-49	1,255,000	1,230,700	1,189,600	1,140,700	1,084,600
50-54	1,067,300	1,032,200	988,400	927,300	834,000
55-59	966,700	914,200	849,900	749,100	622,200
60-64	786,800	729,500	638,500	518,800	382,300

¹ The people are 5 years older than in 1971.

² The people are 10 years older than in 1971, etc.

Source: Demography Division, Estimates Section, July 1st, 1993.

**Table 5. Total Fertility Rates (Former and New Estimates), Canada,
(Excluding Newfoundland), 1971-1991**

Year/Age		Former Rates	New Rates	Change in %
1971:	15-19	0.0398	0.0387	- 2.8
	20-24	0.1344	0.1284	- 4.5
	25-29	0.1420	0.1380	- 2.8
	30-34	0.0773	0.0758	- 1.9
	35-39	0.0336	0.0333	- 0.9
	40-44	0.0094	0.0093	--
	45-49	0.0006	0.0006	--
	T.F.R.	2.1852	2.1202	- 3.0
1976:	15-19	0.0334	0.0327	- 2.1
	20-24	0.1103	0.1045	- 5.3
	25-29	0.1299	0.1263	- 2.8
	30-34	0.0656	0.0637	- 2.9
	35-39	0.0211	0.0208	- 1.4
	40-44	0.0043	0.0043	--
	45-49	0.0003	0.0003	--
	T.F.R.	1.8244	1.7634	- 3.3
1981:	15-19	0.0264	0.0257	- 2.7
	20-24	0.0967	0.0914	- 5.5
	25-29	0.1269	0.1233	- 2.8
	30-34	0.0680	0.0667	- 1.9
	35-39	0.0194	0.0191	- 1.5
	40-44	0.0032	0.0032	--
	45-49	0.0002	0.0002	--
	T.F.R.	1.7039	1.6474	- 3.3
1986:	15-19	0.0235	0.0228	- 3.0
	20-24	0.0846	0.0787	- 7.0
	25-29	0.1244	0.1190	- 4.3
	30-34	0.0755	0.0725	- 4.0
	35-39	0.0225	0.0223	- 0.9
	40-44	0.0032	0.0031	--
	45-49	0.0001	0.0001	--
	T.F.R.	1.6705	1.5932	- 4.6
1991:	15-19	0.0269	0.0256	- 4.8
	20-24	0.0829	0.0775	- 6.5
	25-29	0.1288	0.1207	- 6.3
	30-34	0.0886	0.0842	- 5.0
	35-39	0.0295	0.0285	- 3.4
	40-44	0.0041	0.0039	--
	45-49	0.0002	0.0002	--
	T.F.R.	1.8050	1.6834	- 6.7

Note: Changes were not considered for extremely small rates.

Source: Demography Division, Estimates Section.

it is the new series that is used, based on the most recent 1991 census. In future, estimates will continue to be calculated by the method using components which have become increasingly numerous, and these will be rectified when new census figures become available and the accuracy of these figures has been assessed. To avoid any unwelcome discontinuity in assessment of the demographic situation, population figures for the past 20 years have been recalculated.

The new series of estimates has made it necessary to recalculate demographic rates and normal indices from 1971 on; however, the changes are not very large. *The negative effects of inadequate enumeration in the censuses on which estimates are based mainly affects the earlier years of adulthood, with a lesser effect on children and older adults, so it is mainly the rates of phenomena frequent at these ages that show slight changes (e.g. fertility, abortion, marriage, delinquency).* Table 5 gives an example of the effects on fertility rates.

It is clear that the reduction in rates caused by correcting estimates is significant between ages 20 and 29 and then becomes smaller. The lowering of rates due only to the increase in the denominator tends to become greater over time due to the slight but constant rise in under-enumeration and the inclusion of returning Canadians and temporary residents.

The effect on the total fertility rate, while not negligible, is nevertheless low, and the changes do not affect trends and concern only the past.

Since the new estimates have been drawn up for 1971 on, we can calculate the completed fertility in a uniform series for the 1951-1956 birth cohort groups, whose members have, for all practices, come to the end of their fertile period (Table 6). Here again, the difference between the results of calculations using the old and new estimates is small (0.073 children or 3.8% of the value of the rate). Although the difference between completed fertility rates is smaller than between recent total fertility rates, this is due to the fact that the women for whom completed fertility is being calculated have experienced slightly lower rates early in their fertile lives.

Although not a significant factor, the rates calculated now with the new estimates are more rationally constructed than those published previously. The universes of the numerator and denominator are the same, which was not the case before. The events (births, marriages, deaths, etc.) experienced by non-residents were included as events, but the people responsible for them were not counted in the population at risk.

More Progress to Come

Despite substantial improvements to estimates, all involved are aware that certain unexplainable irregularities subsist in the series and that there is accordingly still room for improvement, as Table 7 would indicate.

Table 6. Cumulative Fertility¹ by Cohort, Using Former and New Population Estimates

Cohort	20 years	25 years	30 years	35 years	40 years
	Former Estimates				
	1951-56	1,990	7,505	13,850	17,625
	1956-61	1,670	6,505	12,725	17,155
	1961-66	1,320	5,550	11,990	
	1966-71	1,175	5,320		
	1971-76	1,345			
	New Estimates				
	1951-56	1,935	7,160	13,325	16,950
	1956-61	1,635	6,205	12,155	16,365
	1961-66	1,285	5,220	11,855	
	1966-71	1,140	5,015		
	1971-76	1,280			

¹ For 10,000 women.

Source: Demography Division, Estimates Section.

Table 7. Variations in the Sex Ratio for Some Cohorts According to the Adjusted and Non-Adjusted Net Undercoverage of the Census

	Age Groups						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Non-Adjusted Adjusted	Cohort 1952-1956						
	1.03	1.00	0.99	0.98	0.99		
	1.03	1.02	1.01	1.00	1.00		
Non-Adjusted Adjusted	Cohort 1947-1951						
	0.99	1.01	1.00	1.00	1.00		
	1.01	1.03	1.02	1.02	1.01		
Non-Adjusted Adjusted	Cohort 1942-1946						
	1.02	1.02	1.02	1.01	1.01		
	1.05	1.04	1.05	1.03	1.02		

Source: Demography Division, Estimates Section and calculations by author.

As a rule, male mortality is a little higher than that of females, but since there are more males born than females, the numbers of each sex tend to become equal late in adult life and then give way, at each age, to larger numbers of women than men. The male sex ratio, which is greater than 1 at birth, reaches this value around age 40 and falls below unity for older age groups.

Table 7 shows that, in the new estimates as in the old, the trend in the sex ratio is not in line with the model. We cannot attribute to immigration this abnormal trend in the sex ratio with age, since for many years the sex ratio of immigrants has been little different from that of the population born in Canada and we thus cannot sustain the thesis of excess male emigration.

Attempts are thus being made to refine adjustments for certain age groups to achieve better correspondence between the estimates where there are gaps in coverage of the components of population change.

MARRIAGE AND DIVORCE

Since 1968, there have never been fewer marriages than in 1991 (172,251). As opposed to 1968, however, the population of the age groups most likely to marry (15-49) was 48% larger (14,709,240 instead of 9,931,338). As a result, the "rate" that we can calculate for this year using these figures (11.7 per 1,000 instead of 17.3 per 1,000) is that much lower.

For over 20 years now, the near-constant number of marriages has been a signal of a very clear trend towards fewer marriages shown by all indicators, and this trend continues. It is true that 1991 was an especially bad year for marriages, because of particularly hard economic times. *The total number of marriages*, including remarriages, which was already down slightly in 1990 compared to 1989, *fell this time by over 8%, a drop never before seen in the history of Canada*, with first marriages being as severely affected as remarriages (Table 8). Total first marriage rates (Table 9) for both males and females thus fell to levels which would have been unbelievable only a few years ago (584 for males and 623 for females in 1991).

In past years, an almost regular decline was noted in rates for younger ages, which was partially compensated by some increase in rates at later ages, indicating a later age at marriage. In 1991, on the other hand, all rates were on the decline, with only minor exceptions. This would clearly indicate that to the general downward trend have been added the effects of the economic difficulties which Canada is experiencing (Tables A3 in the Appendix and figures 2A and 2B). All provinces again showed a drop in the rate, which had risen slightly over the preceding three years. Quebec is at an all-time low with a rate of 400 per 1,000 for males and 443 per 1,000 for females, while the eastern provinces which on the whole had the lowest rates also had the largest percentage declines.

Table 8. Marriages, First Marriages, Remarriages, Canada, 1967-1991

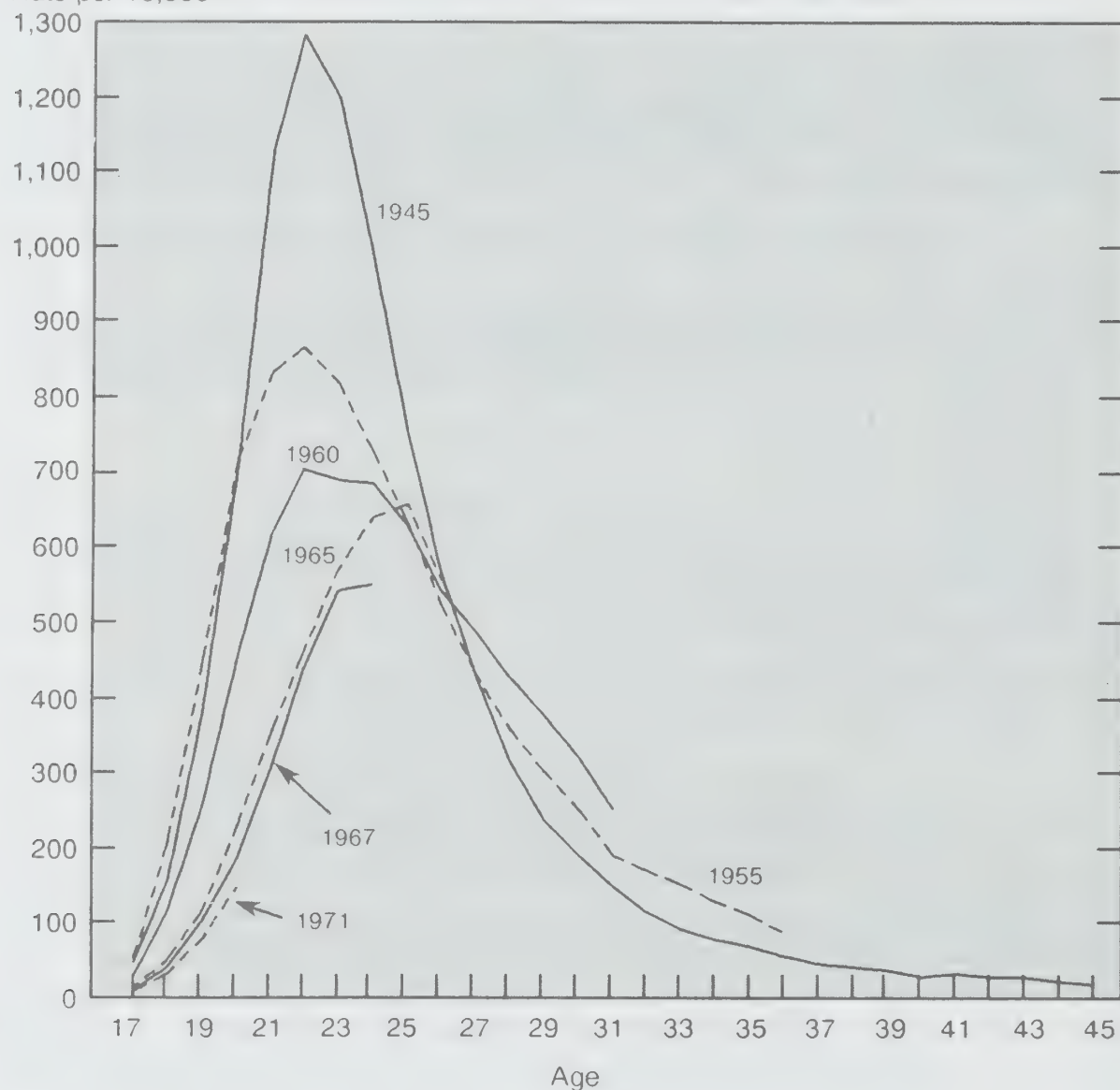
Year	Number of Marriages	Number of First Marriages		Number and Proportion of Marriages in which at least one Spouse had been Previously Married		Number and Proportion of Remarriages in which both Spouses had been Previously Married	
		Males	Females	Number	%	Number	%
1967	165,879	151,883	151,488	20,417	12.3	7,970	39.0
1968	171,766	157,309	156,783	21,133	12.3	8,307	39.3
1969	182,183	162,853	162,690	27,494	15.1	11,329	41.2
1970	188,428	167,267	167,421	29,975	15.9	12,193	40.7
1971	191,324	168,944	169,072	31,698	16.6	12,934	40.8
1972	200,470	176,537	177,155	33,582	16.8	13,666	40.7
1973	199,064	173,355	174,135	36,047	18.1	14,591	40.5
1974	198,824	170,678	172,107	39,063	19.6	15,800	40.4
1975	197,585	167,022	168,817	42,300	21.4	17,031	40.3
1976	186,844	155,679	157,412	43,098	23.1	17,499	40.6
1977	187,344	154,906	156,854	44,750	23.9	18,178	40.6
1978	185,523	151,884	154,016	46,254	24.9	18,892	40.8
1979	187,811	152,731	154,982	48,309	25.7	19,600	40.6
1980	191,069	154,138	156,918	50,600	26.5	20,422	40.4
1981	190,082	151,978	154,506	52,340	27.5	21,340	40.8
1982	188,360	149,419	152,825	52,979	28.1	21,438	40.5
1983	184,675	144,960	147,968	53,342	28.9	22,080	41.4
1984	185,597	144,674	147,907	55,436	29.9	23,177	41.8
1985	184,096	144,009	146,718	54,632	29.7	22,833	41.8
1986	175,518	137,665	138,523	52,678	30.0	22,170	42.1
1987	182,151	138,454	139,324	60,106	33.0	26,529	44.1
1988	187,728	142,956	143,943	61,665	32.8	26,892	43.6
1989	190,640	145,733	146,242	62,276	32.7	27,029	43.4
1990	187,738	143,637	145,350	60,393	32.2	26,094	43.2
1991	172,251	131,996	133,576	55,578	32.3	23,644	42.5

Sources: Statistics Canada, Vital Statistics, *Marriages and Divorces*, Catalogue No. 84-205 (Annual) from 1967 to 1986 and Canadian Center for Health Information, *Marriages*, Catalogue No. 82-003 (Annual) from 1987 to 1991.

Figure 2A

Age-specific First Marriage Rates for Recent Cohorts, Males, Canada

Rate per 10,000



Source: Table A2.

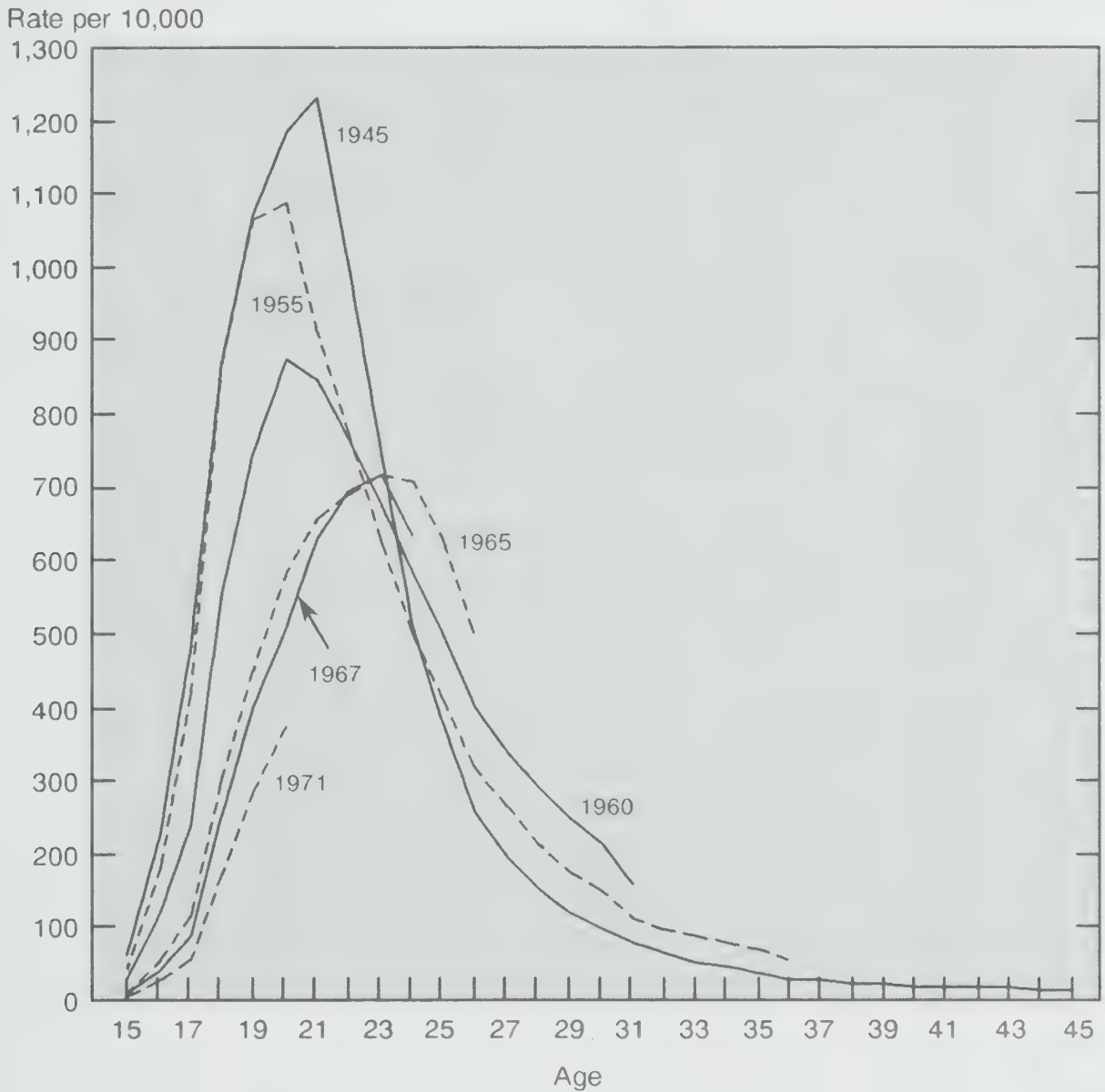
1991 Nuptiality Table

As discussed in previous reports,³ the total rate, by its very construction, contains weaknesses that do not affect the marriage table which uses as the denominator of the rates on which it is based only the population at risk. Although this does not give it a predictive value, it is more effective than the total marriage rate³ in showing the behaviour of a fictitious cohort that at each age followed the propensity to marry for the year in question. It was possible to calculate the 1991 first marriage table using the census which counted the

³ 1991 Report and Marriage and Conjugal Life in Canada.

Figure 2B

**Age-specific First Marriage Rates for Recent Cohorts,
Females, Canada**



Source: Table A2.

number of people never legally married forming the denominator of rates⁴ (tables 10A and 10B). This table indicates that, at the observed marriage rate, *of 100,000 never-married 15 year-old women, 23,279 will still be unmarried at age 50, and of 100,000 men, 27,706 will not have married by that age*. The comparison with previous tables shows how rapidly the institution is falling into disfavour. Quite recently, *in 1976*, the number of never-married individuals was *8,137 for males and 7,244 for females* (Table 11).

⁴ Figures have not been adjusted for net under-enumeration. Consequently, marriage rates may well be slightly over-estimated, particularly for the 20 year-olds, resulting in an under-estimate of never-married persons.

Table 9. Total First-Marriage Rate, Canada, Provinces and Territories, 1987 to 1991 (per thousands)¹

Province	1987		1988		1989		1990		1991	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Newfoundland	623	596	657	634	689	678	668	664	609	606
Prince Edward Island	691	701	741	747	795	796	755	753	690	699
Nova Scotia	651	672	671	710	674	707	626	662	578	611
New Brunswick	632	646	687	711	678	705	651	682	593	620
Quebec	449	457	460	488	461	479	438	481	400	443
Ontario	688	718	705	761	727	770	725	769	666	705
Manitoba	659	686	655	700	657	697	664	706	613	656
Saskatchewan	624	657	632	677	653	695	633	673	626	652
Alberta	603	640	640	696	673	702	669	710	628	666
British Columbia	662	692	705	756	712	748	701	745	658	699
Yukon	493	513	574	695	535	599	547	629	517	544
Northwest Territories	343	377	349	343	349	361	363	372	343	353
CANADA	606	629	627	657	642	675	631	674	584	623
CANADA WITHOUT QUEBEC	661	689	685	713	704	741	697	738	647	683

¹ Males aged 17-49 and females aged 15-49.

Note: Age specific rates calculated using former population estimates.

Sources: Statistics Canada, Canadian Center for Health Information, *Marriages*, Catalogue No. 82-003 (Annual) and author's calculations.

Table 10A. Male First-Marriage Table, Canada, 1990-1991

Age	Marriages	Population Single	t_x	q_x	c_x	m_x
Males						
15	2	193,075	0.000010	0.000010	100,000	1
16	18	193,965	0.000093	0.000093	99,999	9
17	74	186,935	0.000396	0.000396	99,990	40
18	507	188,820	0.002685	0.002681	99,950	268
19	1,406	190,200	0.007392	0.007365	99,682	734
20	3,064	195,055	0.015708	0.015586	98,948	1,542
21	5,246	189,650	0.027661	0.027284	97,406	2,658
22	7,688	178,190	0.043145	0.042234	94,748	4,002
23	10,272	168,800	0.060850	0.059053	90,747	5,359
24	12,218	161,320	0.075738	0.072974	85,388	6,231
25	13,739	156,910	0.087557	0.083884	79,157	6,640
26	13,645	153,840	0.088693	0.084927	72,517	6,159
27	12,495	141,510	0.088298	0.084564	66,358	5,612
28	10,788	127,845	0.084380	0.080964	60,746	4,918
29	9,144	113,140	0.080820	0.077681	55,828	4,337
30	7,482	103,305	0.072421	0.069891	51,491	3,599
31	6,008	90,600	0.066313	0.064185	47,893	3,074
32	4,719	79,370	0.059449	0.057733	44,819	2,588
33	3,840	71,585	0.053636	0.052235	42,231	2,206
34	3,035	63,365	0.047889	0.046769	40,025	1,872
35	2,397	55,490	0.043188	0.042275	38,153	1,613
36	1,906	50,155	0.037992	0.037284	36,540	1,362
37	1,505	43,925	0.034263	0.033686	35,178	1,185
38	1,151	38,095	0.030201	0.029752	33,993	1,011
39	909	34,550	0.026310	0.025968	32,982	856
40	710	31,160	0.022770	0.022513	32,125	723
41	546	27,585	0.019775	0.019582	31,402	615
42	467	24,440	0.019108	0.018927	30,787	583
43	385	22,770	0.016886	0.016745	30,204	506
44	315	21,060	0.014934	0.014823	29,698	440
45	226	17,420	0.012945	0.012862	29,258	376
46	166	15,820	0.010461	0.010407	28,882	301
47	158	14,375	0.010991	0.010931	28,581	312
48	144	13,295	0.010794	0.010736	28,269	303
49	113	12,100	0.009339	0.009295	27,965	260
50	94	11,610	0.008096	0.008064	27,706	223
51	85	10,470	0.008118	0.008086	27,482	222
52	68	9,805	0.006935	0.006911	27,260	188
53	66	9,405	0.007018	0.006993	27,072	189
54	56	8,830	0.006285	0.006266	26,882	168
55	61	9,060	0.006678	0.006655	26,714	178
Mean age		28.78	} For the 15 to 49 age span.			
Median age		27.45				
Modal age		25.00				

Sources: Vital Statistics, census and calculations by author.

Table 10B. Female First-Marriage Table, Canada, 1990-1991

Age	Marriages	Population Single	t_x	q_x	c_x	m_x
Females						
15	35	182,515	0.000192	0.000192	100,000	19
16	288	182,650	0.001574	0.001573	99,981	157
17	779	176,735	0.004408	0.004398	99,824	439
18	2,695	177,025	0.015221	0.015106	99,385	1,501
19	4,920	177,195	0.027766	0.027386	97,883	2,681
20	7,830	179,885	0.043525	0.042598	95,203	4,055
21	10,364	168,270	0.061589	0.059749	91,147	5,446
22	12,252	153,050	0.080049	0.076968	85,701	6,596
23	13,472	138,465	0.097292	0.092778	79,105	7,339
24	13,645	126,560	0.107814	0.102300	71,766	7,342
25	13,205	117,730	0.112159	0.106203	64,424	6,842
26	11,897	112,000	0.106219	0.100862	57,582	5,808
27	9,970	100,780	0.098923	0.094261	51,774	4,880
28	7,978	90,355	0.088296	0.084563	46,894	3,965
29	6,318	79,695	0.079277	0.076255	42,928	3,273
30	5,037	72,705	0.069280	0.066960	39,655	2,655
31	3,822	64,680	0.059083	0.057388	37,000	2,123
32	3,030	56,870	0.053279	0.051897	34,876	1,810
33	2,338	51,160	0.045700	0.044679	33,066	1,477
34	1,896	45,770	0.041425	0.040584	31,589	1,282
35	1,502	39,830	0.037698	0.037000	30,307	1,121
36	1,198	36,595	0.032737	0.032209	29,186	940
37	873	33,120	0.026344	0.026001	28,246	734
38	662	28,680	0.023082	0.022819	27,511	628
39	568	25,845	0.021977	0.021738	26,883	584
40	452	23,715	0.019060	0.018880	26,299	497
41	353	21,585	0.016354	0.016221	25,802	419
42	319	19,685	0.016205	0.016075	25,384	408
43	233	17,885	0.013000	0.012916	24,976	323
44	195	16,790	0.011584	0.011518	24,653	284
45	142	14,035	0.010082	0.010031	24,369	244
46	131	12,780	0.010250	0.010198	24,125	246
47	111	11,720	0.009471	0.009426	23,879	225
48	91	11,180	0.008140	0.008107	23,654	192
49	79	10,015	0.007838	0.007808	23,462	183
50	60	9,305	0.006448	0.006427	23,279	150
51	57	8,540	0.006616	0.006594	23,129	153
52	52	8,345	0.006231	0.006212	22,977	143
53	39	7,590	0.005072	0.005060	22,834	116
54	36	7,310	0.004856	0.004845	22,718	110
55	35	7,275	0.004811	0.004799	22,608	109
Mean age		26.67	] — For the 15 to 49 age span.			
Median age		25.41				
Modal age		24.00				

Sources: Vital Statistics, census and calculations by author.

Table 11. Number of Singles at Age 50 from the First-Marriage Table, Canada, 1976-1991

	Year			
	1976	1981	1986	1991
Males	8,137	16,042	21,528	27,706
Females	7,244	14,691	19,689	23,279

Source: Statistics Canada. *Marriage and Conjugal Life in Canada*, Appendix B, Catalogue No. 91-534, Jean Dumas and Yves Peron.

Table 12. Singles at Age 50¹ Mean and Median Ages at First-Marriage, According to the First-Marriage Table of 1991, Canada and Provinces

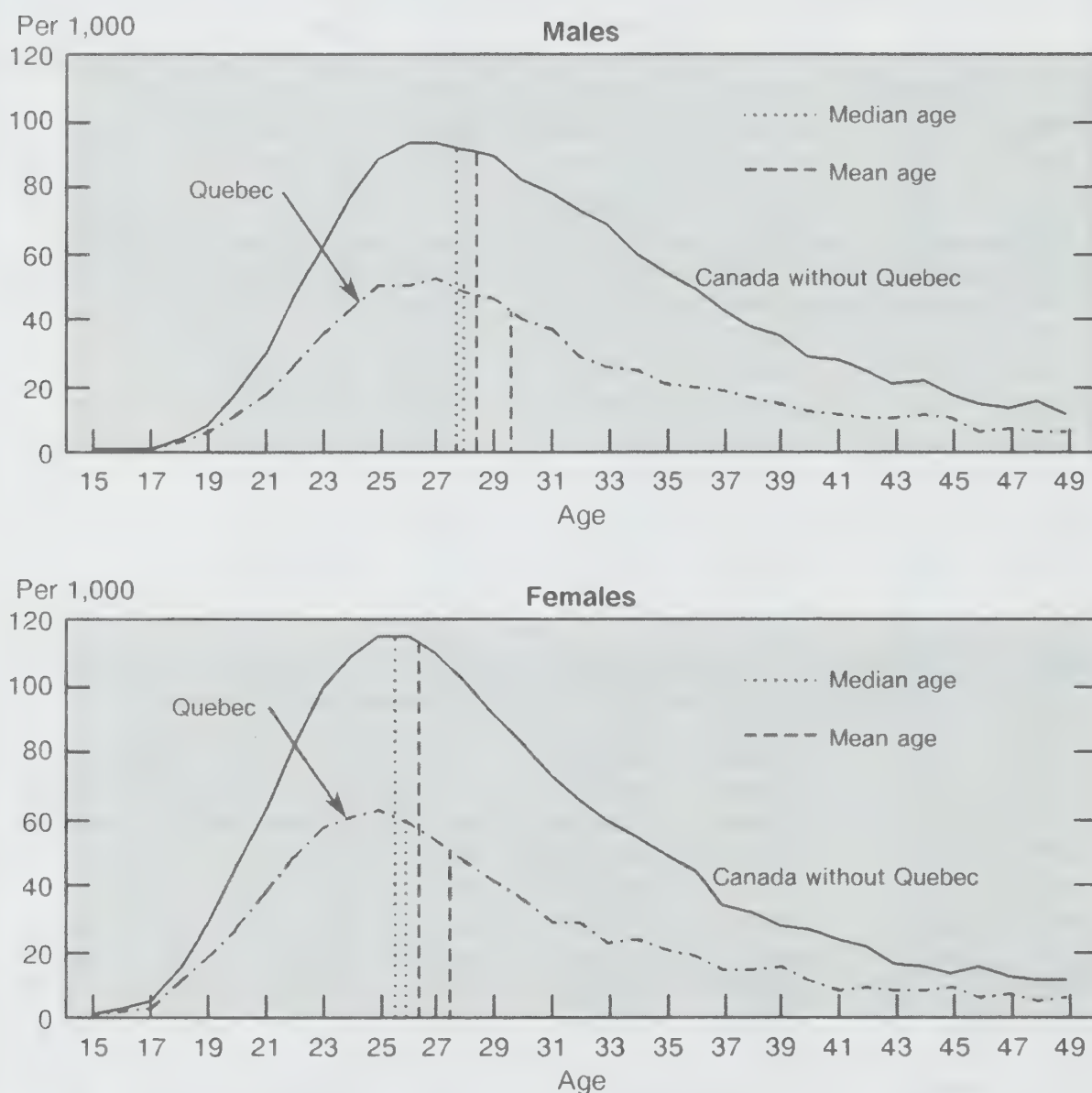
	Number of Singles		Mean Age		Median Age	
	Males	Females	Males	Females	Males	Females
Newfoundland	21,192	19,968	28.18	26.23	27.09	25.21
Prince Edward Island	14,910	13,516	27.89	25.93	26.52	24.99
Nova Scotia	23,371	20,373	28.57	26.63	27.21	25.40
New Brunswick	24,036	20,179	27.82	25.99	26.64	24.84
Quebec	47,579	42,496	29.28	27.31	27.83	25.79
Ontario	19,742	16,229	28.66	26.57	27.39	25.41
Manitoba	23,118	18,878	28.32	26.11	26.95	24.92
Saskatchewan	22,677	18,036	27.82	25.68	26.50	24.45
Alberta	22,887	17,526	28.58	26.30	27.31	25.09
British Columbia	23,865	18,045	28.98	26.74	27.76	25.54
Canada	27,706	23,179	28.78	26.67	27.45	25.41

¹ First-marriage tables cannot be calculated for Yukon and the Northwest Territories due to small number of marriages. Tables for Newfoundland and Prince Edward Island should be interpreted with care for the same reason.

Source: Author's calculations.

Figure 3

First Marriage Probabilities, Canada (without Quebec) and Quebec, 1991



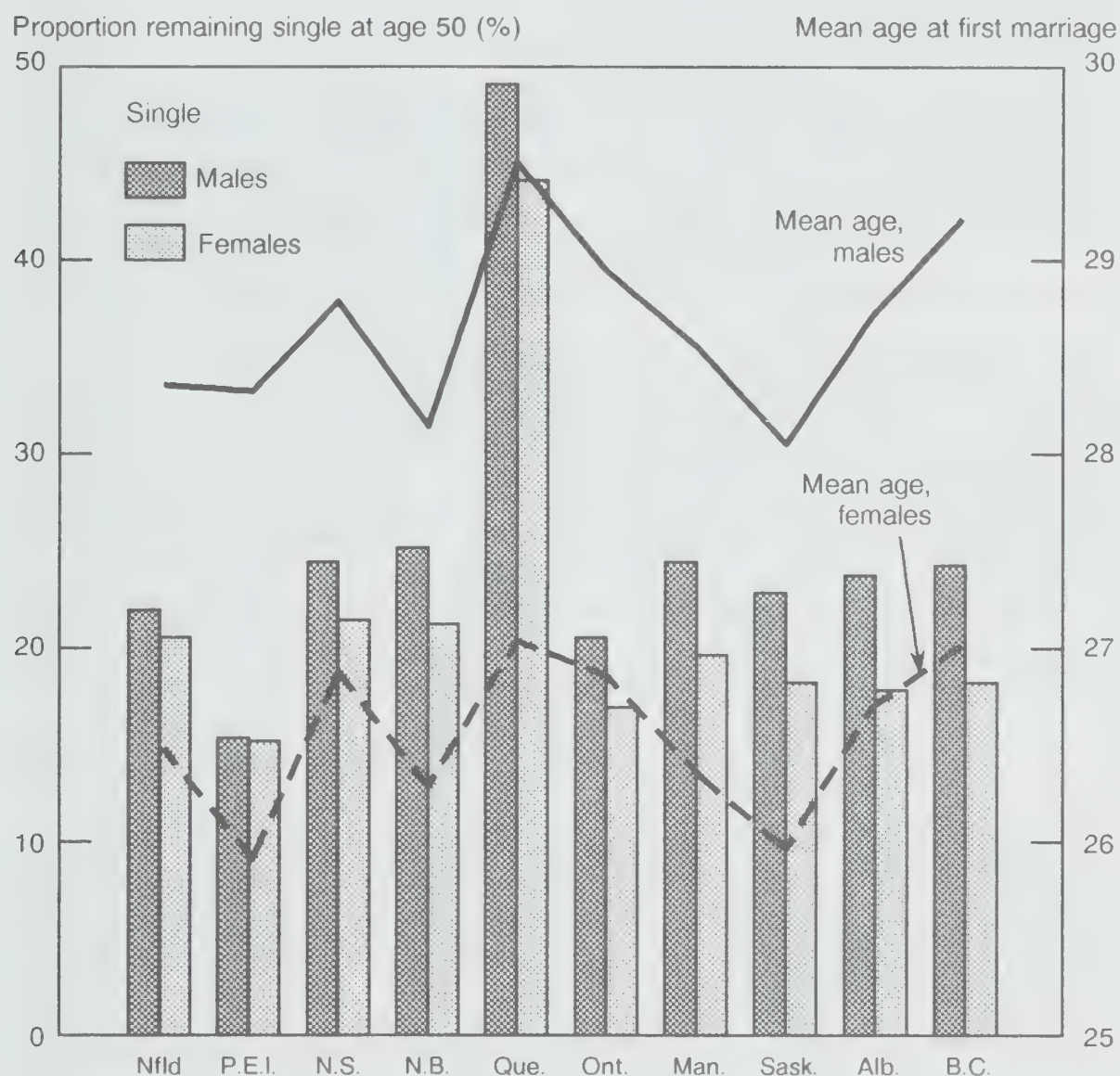
Source: Nuptiality tables calculated by the author from marriages of singles provided by the Canadian Centre for Health Information.

The sensitivity of the marriage rate to the current poor economic situation certainly does not invalidate the trend, since the decline has been observed for at least 15 years.

Like total events, the nuptiality table shows differences between provinces (Table 12). The most noteworthy point is the very high never-married rate *in Quebec. Never-married individuals at age 50 in the table were close to twice as numerous as those of other provinces* and average age at marriage about one year higher (figures 3 and 4). The second point is an exception: the intensity of marriage in Prince Edward Island, which was over three times higher than that of Quebec.

Figure 4

Proportion Remaining Single and Mean Age at First Marriage, by Province, 1991



Source: Table A8.

Divorce

At the time of this analysis of the demographic situation, detailed figures for 1991 divorces were not yet available. We know that 77,031 divorce decrees were handed down, slightly less than in 1990 (78,152). From the standpoint of life in a legal relationship, *the legal system increased the number of unions by 172,251 (marriages) and deducted close to half (45%) of this figure by divorce.*

BIRTHS AND FERTILITY

Births

The number of births in 1991 (402,481) was down 3,005 from the previous year (Table A4 in the Appendix), following a steady rise since 1987 (369,742). This slight decrease was enough to reduce the crude birth rate by a tenth of a point to 14.2 per 1,000. All provinces with the exception of Ontario and British Columbia and both territories recorded declines. *The reason for the increase in Ontario and the stability in British Columbia is merely a question of the number of women of child-bearing age, which increased in these two provinces due to internal and international migration rather than a rise in fertility* (see below).

While the number of births declined in Quebec, this was due to first and second-order births, since higher-order births continued to increase. In most of the other provinces, all birth orders were involved in the drop except in Ontario where fourth and fifth-order births were up by a few hundred. This observation might lead us to conclude that Quebec government assistance granted on third and subsequent births has been successful; however, preliminary data indicate that the number of births in 1992 was down. The few hundred more births in Ontario are no doubt due to the fact that Ontario has more female immigrants than the rest of the country.

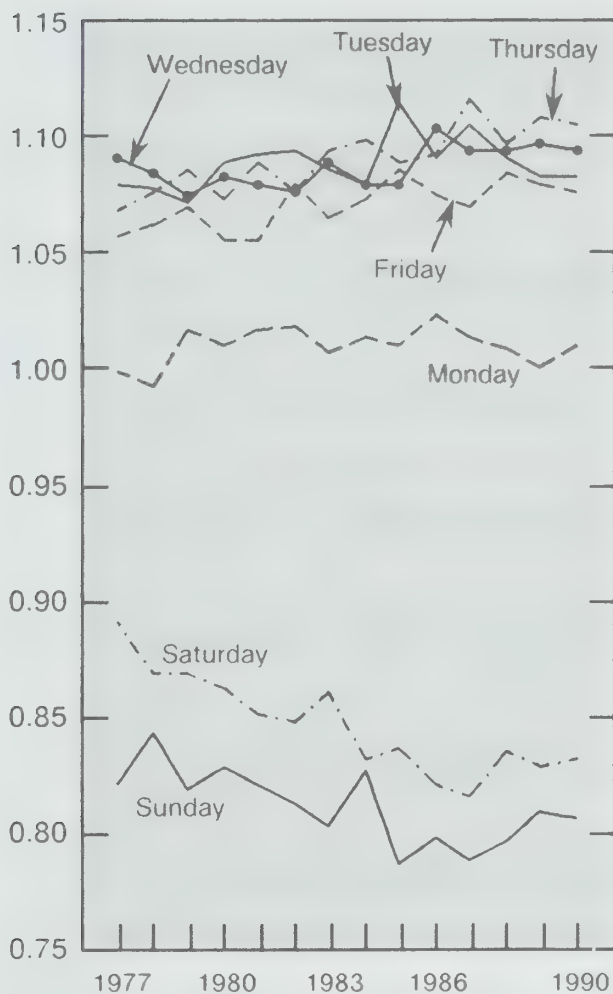
Fertility

Not unexpectedly, the new population estimates place fertility and total fertility rates at lower levels than those published in previous years, however, there is no change in trends and comparisons (Table 13). During the past 11 years, the level of fertility in period rates was lowest in 1987 for both Quebec and the rest of Canada. The only noteworthy difference is the level of 1.37 children per woman in Quebec, down from 1.42 and 1.65 for the rest of Canada instead of 1.74. The period fertility rate was lower than previously estimated, as was the cumulative fertility of birth cohorts.

The year 1991, not surprisingly, showed a lower T.F.R. than 1990 for all of Canada with the exception of Quebec. The slight decline affected first, second and third-order births, while in Quebec the increase in fertility, although also slight, affected all orders and the total rate thus continued to rise. As with births, however, we are already certain that the Quebec rate was down in 1992.

Fertility in the 35-39 age group for Canada as a whole has been rising for the past 11 years. The rate for those 30-34 dipped slightly in the rest of Canada after a significant and sustained increase for at least 10 years and continued to increase in Quebec, although remaining at a much lower level than in the rest of Canada. Fertility rates for those 20-24 in the rest of Canada were still down, losing 23% over 11 years. These observations could lead us to conclude that child-bearing is occurring increasingly later.

Figure 5
Distribution of the Birth Index by
Day of the Week,
Canada, 1977-1990



Source: Vital Statistics, unpublished data.

It is less simple than in the case of marriages to attribute the slight decline to hard economic times, since fertility is less subject to very rapid changes than nuptiality, particularly when levels are very low. We may nevertheless reasonably assume that births were at least deferred due to lower than expected income levels for many couples.

Birth Under Control

Practitioners have known for some time how to induce delivery in a woman whose baby is ready to be born.⁵ With this knowledge, the birth of a child is increasingly a social event, with more and more births being induced as time goes by to satisfy the wishes of the mother, the family... or the obstetrician. As a result, instead of births being uniformly distributed throughout the week, examination of the statistics shows that fewer and fewer births take place on weekends (Figure 5).

Abortion

Abortion was up slightly in 1991 (95,059) over 1990 (92,901), an increase of 2,158, while births were down by 3,005, from 405,486 to 402,481. If there was a direct relation between births and abortion, we might say that we should have expected 92,213 abortions. The link is far from being direct, however. *The fact remains that, all other things being equal, abortion appears to be gaining ground slightly over contraception.* We should bear in mind that the number of known abortions has never coincided with the actual number of abortions. This increase in legal abortions was due to the increase in abortions carried out in clinics (23,343 in 1991 compared to 20,236 in 1990). This increase in turn was predictable given the fact that the number of clinics is increasing and so consequently is access to abortion itself. Abortions in hospitals, on the other hand, were down from 71,069 to 70,262.

⁵ Gestation time is nothing more than a statistical measurement based on rather vague information.

Table 13. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother, Quebec and the Rest of Canada¹, 1981-1991

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate		
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Canada
1	1981	12.84	24.88	54.74	52.78	53.95	47.70	16.28	16.94	3.43	3.64	0.54	0.48	0.7089	0.7320	0.7258
	1982	12.88	24.96	52.32	53.12	49.22	48.00	15.66	18.01	3.52	3.94	0.47	0.52	0.6704	0.7428	0.7231
	1983	12.47	23.31	51.46	51.94	49.77	48.84	16.08	19.40	3.71	4.57	0.46	0.51	0.6697	0.7429	0.7232
	1984	12.39	22.56	48.69	49.46	49.66	49.14	15.96	20.46	3.91	4.74	0.53	0.54	0.6558	0.7345	0.7136
	1985	12.48	21.57	46.94	47.02	49.93	49.11	16.81	20.74	3.95	4.71	0.47	0.56	0.6529	0.7185	0.7014
	1986	12.97	21.08	46.82	45.67	49.60	48.18	17.41	20.48	4.42	5.03	0.49	0.66	0.6586	0.7055	0.6935
	1987	13.43	20.40	45.37	43.84	50.71	47.49	18.44	20.84	4.45	5.40	0.65	0.72	0.6653	0.6934	0.6864
	1988	13.90	20.76	48.22	43.94	53.93	49.52	19.22	22.13	4.71	6.05	0.69	0.77	0.7033	0.7158	0.7129
	1989	14.86	22.16	50.75	45.02	57.70	50.16	21.45	23.51	5.19	6.28	0.64	0.85	0.7529	0.7399	0.7435
	1990	15.66	22.83	53.08	45.04	60.44	52.55	23.54	25.16	5.64	6.88	0.66	0.89	0.7951	0.7667	0.7739
	1991	14.93	23.55	52.23	43.66	61.28	50.79	24.26	24.92	6.22	7.00	0.73	0.90	0.7983	0.7541	0.7649
2	1981	1.62	4.49	23.95	31.24	52.72	47.01	27.62	25.17	6.11	5.82	0.58	0.62	0.5629	0.5718	0.5693
	1982	1.59	4.49	22.56	30.69	49.00	46.16	25.62	26.27	5.76	6.18	0.60	0.64	0.5257	0.5721	0.5594
	1983	1.54	4.29	21.88	30.07	47.39	46.29	25.03	27.57	5.29	6.66	0.61	0.76	0.5087	0.5782	0.5593
	1984	1.59	4.18	21.58	29.56	48.53	47.31	26.52	28.77	5.69	7.38	0.61	0.71	0.5226	0.5895	0.5716
	1985	1.63	4.08	20.53	28.43	47.13	47.66	26.02	29.77	5.77	7.72	0.58	0.79	0.5083	0.5922	0.5699
	1986	1.65	3.86	18.73	27.07	45.90	47.41	25.03	30.54	5.71	8.16	0.67	0.81	0.4885	0.5893	0.5626
	1987	1.86	4.02	19.12	25.80	43.87	46.43	25.36	31.19	6.05	8.78	0.68	0.95	0.4847	0.5859	0.5592
	1988	1.78	3.75	19.54	25.30	43.98	44.99	27.13	31.40	6.75	9.26	0.83	1.12	0.5000	0.5791	0.5584
	1989	1.93	4.06	20.62	25.01	45.31	44.70	28.65	32.39	7.05	9.63	0.73	1.10	0.5215	0.5845	0.5681
	1990	2.21	4.14	21.79	24.60	48.96	44.41	31.51	33.84	7.98	10.15	0.91	1.20	0.5668	0.5917	0.5853
	1991	2.10	4.30	22.13	24.06	48.37	43.44	32.15	33.20	7.82	10.42	0.85	1.16	0.5672	0.5829	0.5790
3	1981	0.16	0.44	4.41	8.32	17.26	19.66	16.58	15.79	4.57	4.79	0.56	0.69	0.2176	0.2484	0.2399
	1982	0.11	0.49	4.30	8.33	15.66	19.71	14.63	16.17	4.58	5.27	0.58	0.61	0.1993	0.2529	0.2382
	1983	0.14	0.44	3.87	8.05	14.57	19.49	14.02	16.40	4.07	5.44	0.54	0.60	0.1860	0.2521	0.2341
	1984	0.10	0.44	3.69	7.83	14.06	19.49	13.79	17.25	4.31	5.60	0.57	0.65	0.1826	0.2563	0.2364
	1985	0.15	0.45	3.63	7.73	13.68	19.41	13.17	17.32	4.26	5.84	0.51	0.70	0.1770	0.2572	0.2356
	1986	0.18	0.48	3.36	7.42	13.05	19.19	12.20	17.60	4.30	6.05	0.57	0.74	0.1683	0.2574	0.2336
	1987	0.18	0.42	3.50	7.25	12.17	18.53	11.61	17.58	3.88	6.33	0.57	0.76	0.1595	0.2544	0.2290
	1988	0.18	0.48	3.55	7.16	12.37	18.20	12.18	17.84	4.07	6.73	0.52	0.84	0.1644	0.2563	0.2320
	1989	0.22	0.48	4.28	7.19	13.85	17.69	13.86	18.41	4.61	7.08	0.65	0.96	0.1873	0.2591	0.2403
	1990	0.17	0.50	4.49	7.08	15.03	17.17	15.14	18.33	5.21	7.25	0.58	0.91	0.2032	0.2562	0.2425
	1991	0.19	0.51	4.61	6.99	15.08	16.77	15.74	18.50	5.46	7.20	0.66	0.89	0.2087	0.2542	0.2428

See notes at the end of this table.

Table 13. Age-Specific Fertility and Total Fertility Rates by Birth Order and Age of Mother, Quebec and the Rest of Canada¹, 1981-1991 - Concluded

Birth Order	Year	15-19		20-24		25-29		30-34		35-39		40-44		Total Fertility Rate		
		Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Quebec	Rest of Canada	Canada
4	1981	0.01	0.05	0.54	1.58	2.93	5.28	4.47	5.66	2.23	2.63	0.42	0.50	0.0530	0.0785	0.0715
	1982	0.01	0.03	0.55	1.58	2.85	5.28	4.19	5.87	2.20	2.76	0.42	0.47	0.0512	0.0800	0.0720
	1983	0.01	0.03	0.58	1.48	2.77	5.17	3.89	5.83	1.93	2.77	0.34	0.47	0.0476	0.0800	0.0703
	1984	0.02	0.04	0.51	1.47	2.61	5.34	3.64	5.82	1.74	2.73	0.33	0.43	0.0443	0.0792	0.0697
	1985	0.02	0.04	0.47	1.44	2.44	5.22	3.48	5.96	1.83	2.84	0.28	0.54	0.0426	0.0802	0.0700
	1986	0.02	0.03	0.48	1.48	2.39	5.16	3.31	5.95	1.70	2.83	0.37	0.49	0.0413	0.0797	0.0694
	1987	0.02	0.04	0.50	1.50	2.21	5.02	3.19	5.71	1.67	2.86	0.35	0.46	0.0397	0.0780	0.0677
	1988	0.02	0.05	0.54	1.48	2.40	4.94	3.07	5.78	1.69	2.91	0.43	0.49	0.0407	0.0783	0.0683
	1989	0.01	0.05	0.58	1.57	2.59	4.87	3.65	6.13	1.67	3.07	0.35	0.56	0.0442	0.0813	0.0716
	1990	0.00	0.04	0.75	1.65	2.79	4.73	3.95	6.02	2.24	3.11	0.35	0.54	0.0504	0.0805	0.0727
	1991	0.01	0.05	0.81	1.65	3.22	4.69	4.18	6.03	2.11	3.22	0.35	0.47	0.0534	0.0805	0.0737
5 +	1981	0.00	0.01	0.12	0.35	0.77	1.83	1.53	3.16	1.54	2.60	0.57	0.93	0.0226	0.0443	0.0382
	1982	0.00	0.00	0.12	0.37	0.79	1.89	1.34	3.04	1.36	2.53	0.51	0.91	0.0206	0.0437	0.0373
	1983	0.00	0.00	0.10	0.33	0.69	1.86	1.39	3.05	1.22	2.53	0.49	0.75	0.0195	0.0411	0.0352
	1984	0.00	0.00	0.07	0.33	0.65	1.85	1.33	2.96	1.22	2.33	0.39	0.73	0.0183	0.0410	0.0348
	1985	0.00	0.01	0.08	0.37	0.66	1.85	1.13	2.91	1.03	2.12	0.33	0.67	0.0162	0.0396	0.0332
	1986	0.00	0.00	0.09	0.36	0.67	1.81	1.28	2.83	1.07	2.07	0.36	0.65	0.0174	0.0387	0.0329
	1987	0.00	0.01	0.11	0.34	0.64	1.85	1.17	2.87	0.94	2.19	0.34	0.71	0.0160	0.0398	0.0334
	1988	0.00	0.00	0.09	0.38	0.62	1.71	1.31	2.97	1.18	2.11	0.40	0.68	0.0180	0.0393	0.0336
	1989	0.00	0.00	0.13	0.41	0.77	1.76	1.60	2.87	1.30	2.15	0.35	0.63	0.0207	0.0391	0.0342
	1990	0.01	0.01	0.14	0.44	0.76	1.91	1.51	2.92	1.30	2.27	0.39	0.67	0.0206	0.0411	0.0357
	1991	0.00	0.00	0.14	0.43	0.80	1.94	1.62	3.00	1.39	2.27	0.34	0.59	0.0214	0.0412	0.0362
All Orders	1981	14.63	29.86	83.75	94.26	127.63	121.49	66.48	66.71	17.86	19.48	2.67	3.22	1.5650	1.6751	1.6446
	1982	14.60	29.97	79.86	94.09	117.52	121.05	61.44	69.35	17.42	20.69	2.58	3.15	1.4671	1.6915	1.6301
	1983	14.16	28.07	77.89	91.88	115.18	121.65	60.40	72.26	16.23	21.66	2.43	3.09	1.4315	1.6931	1.6221
	1984	14.10	27.23	74.54	88.65	115.53	123.13	61.23	75.26	16.86	22.78	2.43	3.06	1.4235	1.7006	1.6261
	1985	14.28	26.15	71.65	85.00	113.84	123.25	60.62	76.70	16.84	23.22	2.16	3.26	1.3970	1.6878	1.6101
	1986	14.82	25.46	69.49	82.01	111.60	121.75	59.24	77.40	17.19	24.14	2.47	3.35	1.3740	1.6705	1.5920
	1987	15.49	24.89	68.60	78.74	109.60	119.32	59.75	78.19	16.99	25.56	2.59	3.60	1.3651	1.6515	1.5758
	1988	15.87	25.04	71.95	78.26	113.30	119.37	62.90	80.13	18.39	27.05	2.87	3.90	1.4265	1.6687	1.6051
	1989	17.02	26.76	76.34	79.19	120.21	119.17	69.20	83.33	19.82	28.21	2.72	4.11	1.5266	1.7039	1.6577
	1990	18.06	27.53	80.26	78.80	127.98	120.77	75.66	86.27	22.38	29.66	2.89	4.21	1.6361	1.7362	1.7101
	1991	17.23	28.41	79.93	76.79	128.76	117.62	77.95	85.65	23.00	30.11	2.93	4.01	1.6490	1.7130	1.6966

¹ 1981 to 1990 excluding Newfoundland.

Sources: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue No. 84-204 and Population Estimates Demography Division.

MORTALITY

1990 Life Table

Over time, a number of techniques have been developed for drawing up life tables, all of which adhere strictly to the same principle, using various statistical refinements. Notwithstanding slight differences in the figures obtained depending on the method chosen, when the same method is used consistently for a given population, comparisons over time provide the desired information on changes in the various parameters.

For the time being, the data shown in the *Report on the Demographic Situation in Canada* come from the table constructed using the same method over many years.⁶ The accounts for deaths remain unquestioned, and all that has varied are the estimates of population by age. In the next report a new series of tables will be presented covering the period since 1971, although no significant variances are anticipated with the old tables. For the time being, if we merely compare the preliminary table for 1990 without the deaths for 1991 and that which includes the 1991 deaths now available, we can see that, for both males and females, the 1990 preliminary table was a little optimistic. For 1991, we obviously have only the preliminary table, and the minimal gain in life expectancies may not be real (table A6). *According to Table 14, we must conclude that the 1980s were the second best decade since 1921 for gains by males. For females on the other hand, never since the 1920s have gains been so low, making it the first decade during which males gained more ground than females.*

According to the United Nations and the World Health Organization (WHO), Canada ranks eighth for male life expectancy at birth, 2.6 years behind Japan. For females, Canada is in fifth place, 1.9 years behind Japan which held first place for both sexes.

Table 14. Gain in Life Expectancy (in years) by Decade, Canada, 1921-1991

Sex	Decade						
	1921-1931	1931-1941	1941-1951	1951-1961	1961-1971	1971-1981	1981-1991
Males	1.16	1.73	3.36	2.04	0.96	2.48	2.71
Females	1.45	4.25	4.59	3.36	2.19	2.60	1.66

Source: Statistics Canada, Canadian Centre for Health Information, D. Nagnur, Longevity and Historical Life Tables, 1921-1981, Canada and Provinces.

⁶ Silins, J. et W. Zayachkowski. *Canadian abridged life table, 1961-1963*, Health and Welfare Technical Report No. 1. Statistics Canada, Vital Statistics Section, 1966.

Table 15. Cause-Specific Mortality Rate by Diseases of the Circulatory System and by Tumors, by Sex, Canada, 1969-1991¹

Year	Diseases of the Circulatory System ²	Ischemic Heart Diseases ³	Cerebro-vascular Diseases ⁴	Tumors and Cancers ⁵
Males				
1969	438.47	299.14	74.41	-
1970	431.50	297.73	73.57	-
1971	423.36	289.09	72.45	-
1972	425.73	289.79	73.58	-
1973	419.72	284.53	71.00	-
1974	420.32	285.07	70.39	-
1975	404.52	274.18	67.49	-
1976	400.27	271.66	64.17	169.37
1977	398.39	266.14	61.21	173.73
1978	374.85	253.05	58.69	175.32
1979	362.97	237.96	56.50	177.02
1980	354.56	232.80	53.49	178.25
1981	340.03	224.87	51.36	175.70
1982	333.28	218.93	48.09	179.32
1983	320.20	209.96	45.33	178.57
1984	306.12	200.68	43.98	182.40
1985	298.76	195.73	41.77	182.87
1986	291.37	188.44	40.45	183.52
1987	275.09	179.17	39.61	183.25
1988	268.41	174.32	37.90	187.67
1989	258.51	165.15	38.44	185.37
1990	239.49	151.71	37.00	183.82
1991	238.39	149.90	36.22	186.76
Females				
1969	363.54	204.35	90.58	-
1970	351.71	200.24	87.32	-
1971	342.54	192.24	86.41	-
1972	341.65	191.55	86.31	-
1973	335.05	190.07	81.73	-
1974	332.95	190.05	81.81	-
1975	318.28	178.17	79.46	-
1976	309.05	174.28	74.45	132.30
1977	298.59	169.11	69.92	134.77
1978	289.00	164.90	66.12	134.83
1979	278.88	151.93	64.85	137.49
1980	277.09	150.92	61.87	135.88
1981	263.16	143.52	59.65	136.40
1982	259.87	141.57	57.13	136.71
1983	247.29	133.93	54.02	136.80
1984	239.43	131.70	50.98	139.19
1985	233.61	125.74	49.98	142.22
1986	230.55	124.51	49.67	142.40
1987	216.41	117.74	46.24	142.60
1988	211.94	113.78	46.40	143.53
1989	203.25	108.10	45.10	141.71
1990	191.57	102.71	41.68	141.82
1991	192.14	101.91	42.20	143.87

¹ Rate per 100,000, standardized using the 1976 Canadian population age structure.

² Causes 390-459, 9th Revision of the ICD.

³ Causes 410-414, 9th Revision of the ICD.

⁴ Causes 430-438, 9th Revision of the ICD.

⁵ Causes 140-239, 9th Revision of the ICD.

Source: Data from Canadian Centre for Health Information, Catalogue Nos. 82-003 and 84-203 and calculations made by the Demography Division.

For males, and excluding Japan, the following countries ranked ahead of Canada: Hong Kong, Greece, Sweden, Switzerland, Israel and the Netherlands, and for females, France, Switzerland and the Netherlands.

Major Causes of Death

In the modern world, mortality is the demographic phenomenon that shows the greatest inertia. Although we are never totally guaranteed that mortality will not rise again, populations are slowly, with time, gaining ground against death. After combating microbial disease, preventive and curative medicine has since the 1960s marked unexpected success against cardio-vascular disease, which had been rising steadily since the turn of the century. Adjusted rates for these causes of death continued to decline, although gains over the past year were smaller for males and up only slightly for females (Table 15).

Although progress in the fight against premature death due to cardio-vascular disease will no doubt begin to slow down, it is anticipated that only advances made in the fight against cancer would mark a stage in the increase in life expectancy. Although still in second place in causes of death, cancers seem destined to increase still more (Table 15). A thorough discussion of the situation would, however, require an analysis beyond the framework of this annual review. We must reiterate that, despite the increase in cancer death rates, the fight has not been in vain. The gains made in combatting other causes of death, and in particular cardio-vascular disease, mask the more modest gains against cancer. Mortality due to traffic accidents remained stationary (Table 16).

The Impact of AIDS

For five years now, deaths of HIV-positive individuals have been clearly identified in the causes of death listed in the 9th revision (still in use) of the WHO classification. This disease, which has claimed a considerable number of victims world-wide, has not spared Canada, but it is not yet counted as one of the major causes of death in this country (Table 17). Although the number of victims has increased by 102% in the five-year period, the annual total number of deaths is still only 1,062 (0.5% of total). No change has been observed in the overall distribution of victims by age and sex. The overwhelming majority in 1991 were men in the 30-44 age group (70% of the 1,004 male victims), while there was a marginal increase in the number of female victims (total of 58 compared to 45 in 1990). We should, however, expect an increase in deaths in the coming years, since a large number of people are infected, and their risk of developing the disease is high, even though the latency period is long.

How Does Canada Rank for Major Causes of Death?

Two researchers with the Polish Demographic Society (Krystyna Drzewienieka and Kamiriez Dzienio) have undertaken to standardize death rates due to cardio-vascular disease and cancers in order to rank certain industrialized countries

Table 16. Mortality¹ Rate Due to Traffic Accidents (Causes 810 to 819 in the I.C.D.) by Age Group and Sex, Canada, 1971, 1982-1991

Age Group	1971		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0-4	11	9	5	4	5	4	3	5	4	4	5	4	6	6	5	3	6	4	5	3	3	2
5-9	17	13	6	6	9	5	7	5	8	6	6	5	7	4	7	6	6	5	6	4	5	4
10-14	15	8	10	6	9	4	8	5	7	5	8	4	9	5	8	5	7	4	8	5	7	4
15-19	63	25	48	16	44	16	46	13	47	16	44	16	46	16	45	16	41	17	35	12	33	13
20-24	86	21	51	11	57	13	49	12	53	13	48	12	51	13	48	12	45	15	38	13	40	12
25-29	48	13	33	9	32	9	32	9	32	8	29	9	33	9	31	8	33	10	29	8	26	8
30-34	39	9	22	7	26	8	22	6	23	7	22	7	24	8	25	8	25	8	23	7	20	7
35-39	34	13	16	9	21	7	19	8	20	8	20	6	19	8	20	6	21	9	17	6	15	6
40-44	30	12	18	8	21	6	19	8	20	8	17	8	16	7	18	6	18	8	14	8	13	6
45-49	33	12	22	7	15	9	17	7	17	10	16	7	17	8	16	7	16	8	13	7	14	6
50-54	33	12	17	7	19	9	18	8	14	9	15	8	17	10	15	6	15	7	14	7	13	7
55-59	35	16	20	9	18	11	18	9	15	11	21	10	18	9	16	11	17	9	14	8	14	8
60-64	36	20	17	11	19	8	18	9	20	9	15	11	20	9	19	9	20	11	20	9	15	9
65-69	45	24	21	14	17	10	17	9	17	13	19	13	25	13	19	10	22	15	17	10	13	10
70-74	47	21	28	17	23	15	23	15	28	16	25	16	26	16	25	16	29	15	23	12	20	13
75-79	47	25	32	14	30	15	37	23	31	16	33	19	26	18	34	15	34	16	29	18	30	16
80-84	55	23	45	16	38	19	41	17	35	19	33	15	46	16	37	22	57	15	38	17	40	16
85 +	40	16	38	8	43	8	34	9	48	11	37	12	35	12	37	14	45	9	33	9	33	16
Stan- dardized Rates ²	39	13	24	9	24	9	23	9	23	10	22	9	24	9	23	9	23	10	20	8	18	8

¹ Rate per 100,000.

² Standardized on the 1976 population.

Sources: Data from Canadian Centre for Health Information, Catalogue Nos. 82-003 and 84-203 and calculations made by the Demography Division.

**Table 17. Deaths Due to Human Immunodeficiency Virus (H.I.V.)
(Causes 042-044 in the I.C.D.) by Broad Age Groups and Sex,
Canada, 1987-1991**

Year	Sex	Age Groups					Total
		0-14	15-29	30-44	45-59	60 +	
1987	Males	1	85	293	87	22	488
	Females	5	7	12	8	5	37
1988	Males	2	96	361	126	29	614
	Females	3	10	28	7	9	57
1989	Males	3	124	485	164	21	797
	Females	2	10	20	10	12	54
1990	Males	3	108	576	215	35	937
	Females	1	14	19	7	4	45
1991	Males	3	129	698	132	42	1,004
	Females	4	15	25	7	7	58

Source: Statistics Canada, Canadian Centre for Health Information, Causes of Death, Annual.

by using the world population as the standard (tables 18 and 19). *For cardiovascular disease*, the results show that for the most recent period for which rates could be calculated (1980-1984), *Canada ranked a respectable seventh for males and females (all ages combined) and ninth for males and females for death due to the same causes in the 45-64 age group*. In terms of progress achieved since 1960-1964 (decrease of 36.7%), it ranked fourth in importance for both males and females. Among the leading countries where mortality from these causes was low we find France, Japan, Greece, Switzerland, the Netherlands and Iceland.

In terms of deaths from *cancers*, *Canada ranked 11th for males and 15th for females* overall, and 11th for the 45-64 male age group and 18th for the female group. *The situation was much less favourable for cancers of the respiratory system (19th place for males and 22nd out of 27 for females)*.

The choice of the world population as the standard population has the tendency to give to Canada low adjusted rates, given that the world population is a young population while the diseases analysed are degenerative diseases which affect mainly older populations. But since the majority of countries in the group analysed also have relatively old populations, the comparisons remain valid.

INTERNATIONAL MIGRATION

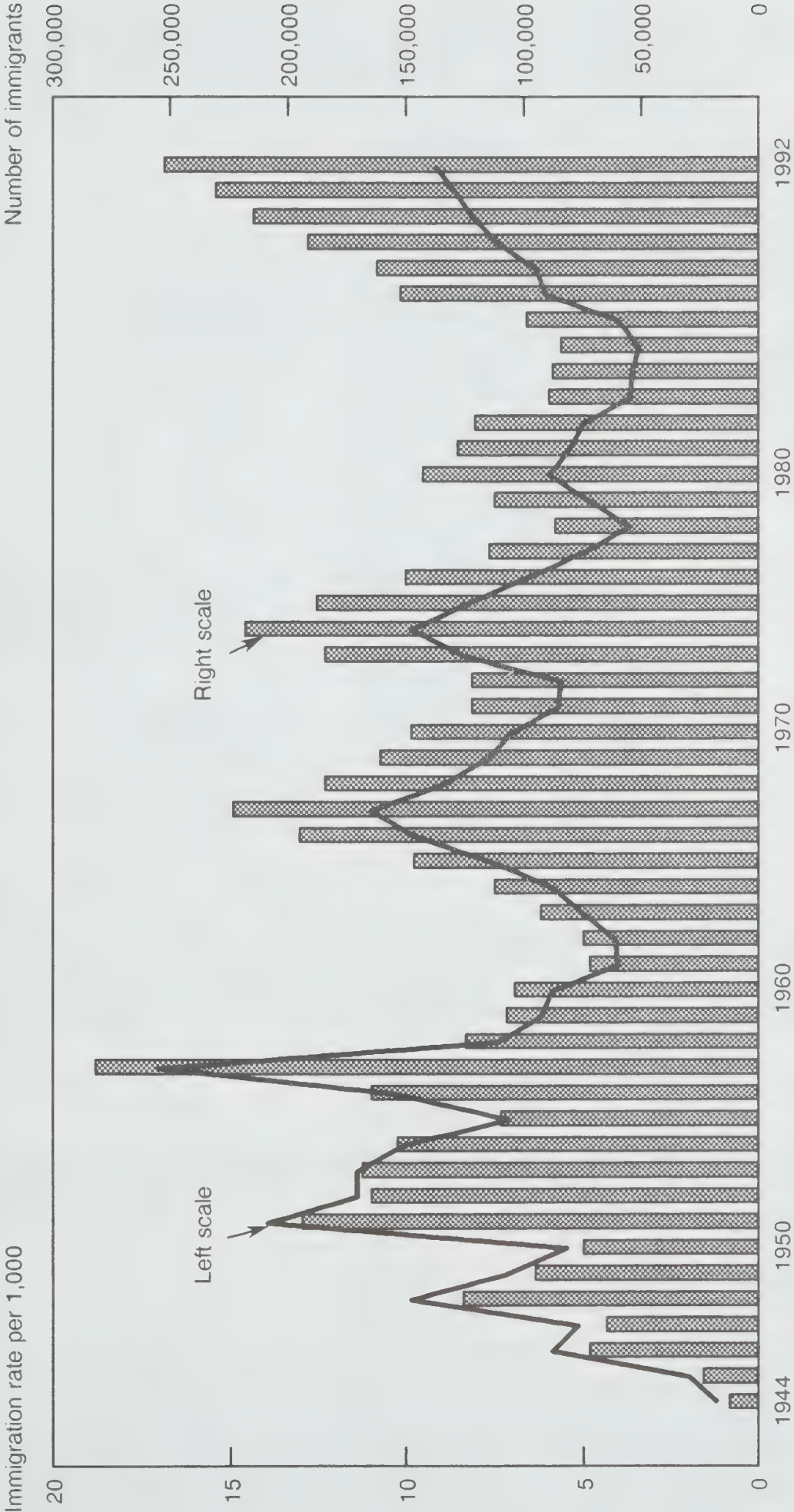
All 1992 immigrants were admitted under the 1976 law and not C-86, since it came into effect only in the spring of 1993. *The objectives set in 1990 for the year 1992 (250,000) were reached and even slightly exceeded, since the number of admissions was 252,842.*

Table 19. Standardized Rates of Mortality from Cardiovascular Diseases, by Sex, per 100,000 People (1980-1984 Period)

	Males				Females			
	All Ages		Age Group 45-64		All Ages		Age Group 45-64	
	Rate	Ranking	Rate	Ranking	Rate	Ranking	Rate	Ranking
Austria	381.0	18	437.4	10	237.2	19	163.4	13
Belgium	312.0	8	410.7	8	186.3	11	148.4	12
Bulgaria	454.7	24	586.2	21	337.6	26	290.5	26
Czechoslovakia	503.0	25	716.3	26	314.6	24	270.3	24
Denmark	326.6	11	445.9	13	175.6	8	147.9	11
Finland	423.0	21	688.7	25	212.3	17	165.5	14
France	219.1	1	263.7	2	124.1	1	83.4	1
FRG	356.2	14	440.7	11	208.3	15	145.6	10
GDR	453.5	23	483.8	16	311.5	22	203.6	17
Great Britain	371.2	17	568.8	20	207.3	14	206.8	19
Greece	244.4	3	302.9	3	185.9	10	127.2	8
Hungary	528.4	27	805.3	27	334.5	25	333.2	27
Iceland	296.1	6	461.6	14	141.8	2	119.3	6
Ireland	422.9	20	601.4	22	253.5	20	240.7	21
Italy	..	..	..	..	..	..	..	..
Malta	525.6	26	645.5	24	363.5	27	284.8	25
Netherlands	287.7	5	396.7	6	151.3	3	119.8	7
Norway	312.1	9	444.6	12	158.9	5	112.6	3
Poland	442.5	22	641.5	23	264.6	21	247.2	22
Portugal	319.2	10	365.3	5	221.0	18	173.3	15
Spain	..	..	..	..	..	..	..	..
Sweden	333.6	12	405.1	7	177.0	9	113.3	4
Switzerland	275.8	4	312.4	4	160.1	6	94.6	2
Yugoslavia	401.8	19	481.9	15	312.1	23	257.6	23
Australia	356.6	15	497.7	17	206.3	13	186.2	16
Canada	299.8	7	429.9	9	162.8	7	144.6	9
Japan	226.1	2	242.0	1	153.5	4	118.8	5
New Zealand	365.6	16	529.7	19	210.2	16	213.2	20
USA	340.4	13	523.6	18	191.7	12	204.1	18

Source: Drzewienieka Krystyna and Kazimierz Dzienio, "Mortality by sex, age, and cause of death in European and highly extra-european countries in the years 1960-1984" in Polish Population Review, No. 3. Warsaw 1993.

Figure 6
Number of Immigrants and Immigration Rates, Canada, 1944-1992



Source: *Employment and Immigration Canada, Immigration Statistics, annual.*

Table 20. Immigrants to Canada by Category, 1981-1992

		Family Category	Refugees	Designated Persons	Assisted Relatives	Independent Immigrants	Total
1981	No.	51,017	810	14,169	17,590	45,032	128,618
	%	39.7	0.6	11.0	13.7	35.0	100.0
1982	No.	49,980	1,791	15,134	11,948	42,294	12,147
	%	41.3	1.5	12.5	9.9	34.9	100.0
1983	No.	48,698	4,100	9,867	4,997	21,495	89,157
	%	54.6	4.6	11.1	5.6	24.1	100.0
1984	No.	43,814	5,625	9,717	8,167	20,916	88,239
	%	49.7	6.4	11.0	9.3	23.7	100.0
1985	No.	38,514	6,080	10,680	7,396	21,632	84,302
	%	45.7	7.2	12.7	8.8	25.7	100.0
1986	No.	42,197	6,490	12,657	5,890	31,985	99,219
	%	42.5	6.5	12.8	5.9	32.2	100.0
1987	No.	53,598	7,473	14,092	12,283	64,652	152,098
	%	35.2	4.9	9.3	8.1	42.5	100.0
1988	No.	51,331	8,741	18,095	15,567	68,195	161,929
	%	31.7	5.4	11.2	9.6	42.1	100.0
1989	No.	60,774	10,210	26,794	21,520	72,703	192,001
	%	31.7	5.3	14.0	11.2	37.9	100.0
1990	No.	73,457	11,398	28,291	23,393	77,691	214,230
	%	34.3	5.3	13.2	10.9	36.3	100.0
1991	No.	86,378	18,374	35,027	22,247	68,755	230,781
	%	37.4	8.0	15.2	9.6	29.8	100.0
1992	No.	99,960	28,699	23,176	19,880	81,127	252,842
	%	39.5	11.4	9.2	7.9	32.1	100.0

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

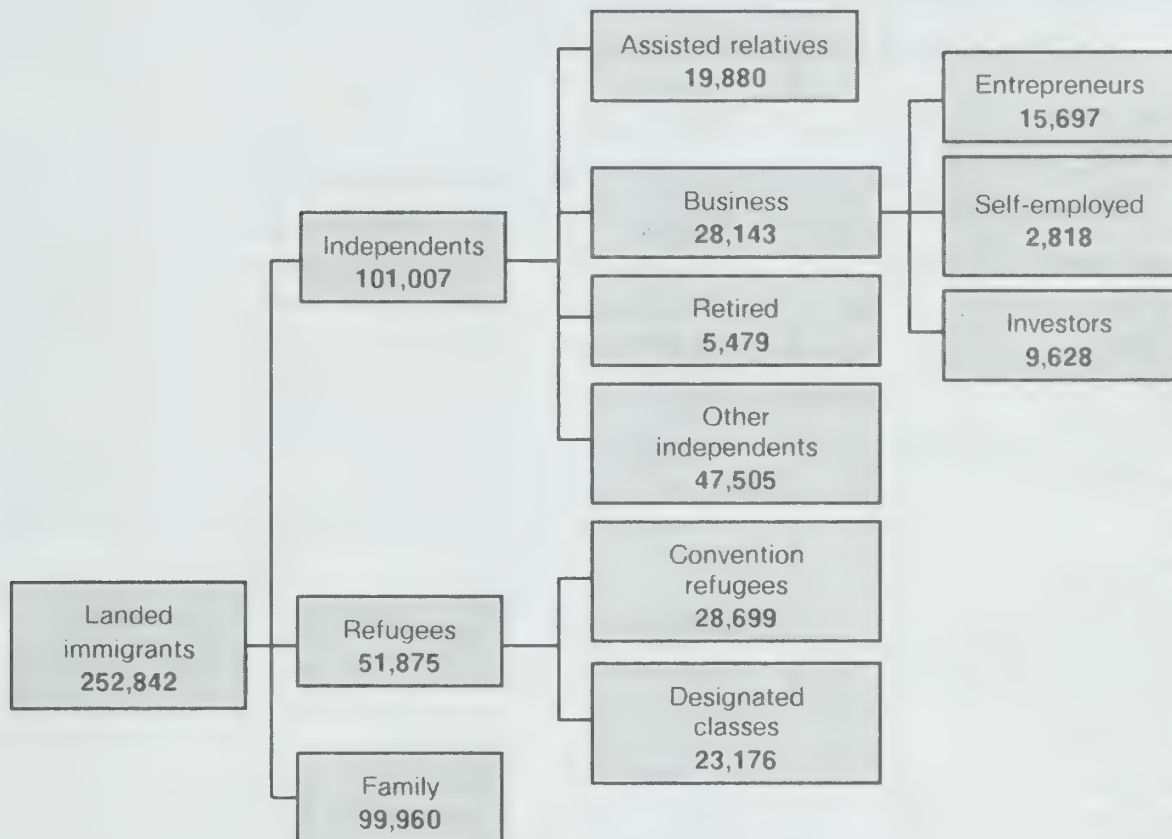
Of this number, 60% were admitted in the family and refugee categories, and in designated classes, that is, persons not subject to the eligibility criteria of the assessment unit system (Table 20).

Where Do They Come From?

With the dismantling of the U.S.S.R., many analysts expected a large wave of emigration, mainly towards the European countries, but also towards countries that have traditionally been immigration destinations, such as Canada, Australia and the United States. In fact, the only significant movements were toward Germany and Austria, and they failed to reach anticipated levels. Perhaps not enough time has yet passed between the event and its consequences.

Figure 7

Immigrant Distribution by Class and Category, 1992



Source: *Employment and Immigration Canada, Immigration Statistics, 1992.*

Table 21. Immigrants Born in Communist Countries (frontier of 1985)

	Year of Admission	
	1985 (84,302 admissions)	1992 (252,842 admissions)
Albania	1	112
Bulgaria	49	1,120
Czechoslovakia	929	823
Estonia	1	62
East Germany	32	15
Hungary	642	782
Lithuania	1	76
Poland	3,642	11,912
Romania	938	3,290
U.S.S.R.	376	2,803 + 405 ¹
Yugoslavia	516	3,164 + 497 ²
Total	7,127	25,061
% of admissions	8.5	9.9

¹ Includes Latvia, Estonia, Lithuania, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine and Uzbekistan.

² Includes Croatia, Slovenia and Bosnia-Herzegovina.

Source: Employment and Immigration Canada, Immigration Statistics for 1985 and 1992.

Table 22. Countries from which more than 4,000 Immigrants were Admitted in Canada During the Last Four Years

Country of Birth	1989-1992 ¹	1989-1991 Average	1992 ¹	Tendency
Hong Kong	83,126	18,418	27,873	+
China	65,946	14,605	22,131	+
Poland	60,227	16,105	11,912	-
India	51,767	12,519	14,209	+
Philippines	50,840	12,374	13,717	+
Libanon	38,669	10,684	6,616	-
Vietnam	35,464	9,210	7,834	-
United Kingdom	26,231	6,804	5,818	-
Sri Lanka	26,051	4,401	12,849	+
Portugal (Azores-Madeira)	24,226	7,176	2,697	-
United States	22,033	5,384	5,882	o
Iran	21,838	4,931	7,046	+
Jamaica	20,149	4,709	6,021	+
El Salvador	20,115	4,806	5,697	+
Taiwan	17,997	3,659	7,019	+
Trinidad and Tobago	13,102	2,928	4,318	+
Guyana	12,655	3,207	3,035	o
South Korea	11,470	2,562	3,784	+
Romania	11,060	2,590	3,290	+
Pakistan	10,667	2,312	3,731	+
Somalia	10,303	1,598	5,509	+
Haiti	10,048	2,543	2,419	o
U.S.S.R.	9,918	2,472	2,503	o
France	9,845	2,248	3,102	+
Ethiopia	9,561	2,432	2,264	o
Yugoslavia	9,032	1,956	3,164	+
Egypt	7,848	2,071	1,634	-
Malaysia	7,299	1,926	1,520	-
West Germany	6,431	1,682	1,386	-
Syria	6,232	1,676	1,204	-
Peru	6,194	1,528	1,610	o
Guatemala	5,861	1,313	1,922	+
Morocco	5,382	1,408	1,159	-
Chile	5,322	1,378	1,187	-
Fiji	5,206	1,154	1,745	+
Iraq	5,083	975	2,158	+
Nicaragua	5,023	980	2,084	+
Israel	4,810	1,271	996	-
Afghanistan	4,635	1,137	1,223	o
Ghana	4,569	691	2,495	+
Mexico	4,569	1,125	1,194	o
South Africa	4,485	1,120	1,125	o
Czechoslovakia	4,212	1,130	823	-
Total	775,501	192,469	219,905	+

¹ Preliminary data as of August 31, 1992.

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

Admissions to Canada have certainly increased considerably, as shown in Table 21, but without taking on drastic proportions given the increase in the total number of immigrants admitted. They nevertheless represented 61% of immigrants born in Europe. It should be emphasized, however, that these are not among the most numerous anymore (Table A7 in the Appendix).

In 1992, *Hong Kong* moved back into first place in the list of countries from which immigrants were admitted (27,873), followed closely by *China* (22,131) (Table 22). *These two countries alone supplied nearly 150,000 immigrants to Canada in 4 years (1989-1992). This means that in the last four years almost one immigrant out of six was born in China or Hong Kong.* The third supplier country, India, sent 14,209 people in 1992. Also noteworthy are a sharp increase in immigrants from Sri Lanka (particularly as refugees) and a decrease in the number arriving from Poland. For the latter, the decline is due to the increase mobility enjoyed by Poles in Europe. The number of immigrants from the Philippines was still on the rise (13,717).

In the refugee category, the highest proportions were Sri Lankans (4,786), Somalis (4,010), Iranians (2,432), Vietnamese (1,777), Salvadorans (1,514), Ethiopians (1,451), Iraqis (1,395) and Lebanese (1,370).

Where Are They Going?

The distribution of new arrivals in the Canadian provinces changes little from one year to another (Table 23). Ontario received less than 50% of immigrants only between 1981 and 1985, and in 1992 was host to nearly 55%. There are a few differences in terms of provenance: 68% of Eastern Europeans chose this province (Table 24), 52% of Asians, 73% of West Indians, 65% of South Americans, 59% of Africans, 51% of those from the Middle East and only 47% of those from North and Central America.

The very high proportion of Asian immigrants choosing Ontario contradicts a commonly held idea that these people tend to settle mainly in British Columbia. It is thought that they concentrate in that province mainly through internal migration, where they seem to be so numerous, but this is far from clear. Although this does not prove that there are no grounds to the theory, the 1991 census showed that the proportion of those born in Asia living in Ontario and British Columbia respectively was the same as in the flow of immigrants from Asia during recent years in these provinces. This impression comes from the fact that in Ontario people originating in Southern, Eastern and Southeast Asia represented 6.8% of the population while they accounted for 11% in British Columbia.

Table 23. Percentage Distribution of Admitted Immigrants by Intended Province of Destination, Canada, 1956-1992

Province	Year														
	1956	1961	1971	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 ¹
Newfoundland	0.3	0.5	0.7	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3
Prince Edward Island	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Nova Scotia	1.0	1.3	1.5	1.1	1.0	0.9	1.2	1.2	1.1	0.8	0.8	0.8	0.7	0.7	0.9
New Brunswick	0.5	1.1	0.9	0.8	0.6	0.6	0.7	0.7	0.7	0.4	0.4	0.5	0.4	0.3	0.3
Quebec	19.0	23.6	15.8	16.4	17.6	18.4	16.6	17.7	19.6	17.6	15.9	17.8	19.1	22.4	19.1
Ontario	55.0	50.9	52.8	42.7	43.8	44.9	47.1	48.3	50.0	55.8	55.0	54.6	53.0	51.5	54.7
Manitoba	3.5	3.5	4.4	4.2	4.1	4.5	4.4	4.1	3.8	3.2	3.1	3.2	3.1	2.4	2.0
Saskatchewan	1.3	1.9	1.2	1.9	1.8	2.0	2.4	2.3	1.9	1.4	1.4	1.1	1.1	1.1	1.0
Alberta	6.0	6.7	7.1	15.0	14.8	12.0	12.1	10.7	9.8	7.9	8.7	8.4	8.8	7.4	7.0
British Columbia	10.8	10.2	15.5	17.1	15.7	16.2	15.0	14.5	12.7	12.4	14.3	13.2	13.4	13.9	14.5
Yukon and Northwest Territories	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Unknown	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total in Percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total in Number	164,857	71,689	121,900	128,618	121,147	89,157	88,239	84,302	99,219	152,098	161,929	192,001	214,230	230,765	252,574

¹ Preliminary as of August 31, 1993.

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

**Table 24. International Immigrants to the Province of Ontario
by Place of Birth, 1992**

Place of Birth	Number		Percentage
	Ontario	Canada	
Africa	11,920	20,091	59.3
Eastern Europe ¹	16,944	25,061	67.6
Rest of Europe	8,371	28,969	28.9
Caribbean	11,028	15,131	72.9
Middle East ²	10,563	20,621	51.2
Asia	63,143	121,152	52.1
North and Central America	8,781	18,658	47.1
South America	6,600	10,231	64.5

¹ Includes Czechoslovakia, Estonia, Latvia, Lithuania, Hungary, Poland, U.S.S.R., Croatia, Yugoslavia, East Germany, Slovenia, Bosnia-Herzegovina, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine, Uzbekistan, Albania, Bulgaria and Romania.

² Includes Israel, Libanon, Syria, Cyprus, Iran, Iraq, Jordan, Kuwait, Saudi Arabia, Bahrain, Oman, Qatar, Yemen Arab Rep., Yemen Dem. Rep. and the Arab Emirates.

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

Investors

Since 1986, there has been a special class within the category of independent immigrants, the investors. These are people who have a net worth of at least half a million dollars and undertake to:

- invest \$150,000 dollars, for a minimum of three years, in a province which during the preceding year, received less than 3% of immigrants in the business class, or
- invest \$250,000 dollars in Canada for a minimum of three years, or
- invest \$500,000 for a minimum of five years - these persons must have a fortune of \$700,000.

In all three cases, the investment must obviously create some economic benefit for the province and contribute to job creation. The annual number of these immigrants is growing steadily, as shown in Table 25.

Table 25. Immigrants in the Investor Category, Canada, 1986-1992

Category	1986	1987	1988	1989	1990	1991	1992
Principal Applicant	5	87	249	533	1,000	1,238	2,196
Dependants	18	229	779	1,738	3,208	3,951	7,165
Total	23	316	1,028	2,271	4,208	5,189	9,361
Dependants by Applicant	3.6	2.6	3.1	3.3	3.2	3.2	3.3

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

**Table 26. Investments of Investing Immigrants, Canada, 1989-1992
(in dollars)**

	1989	1990	1991	1992	Total 1989-1992
Number of Investing Immigrants	533	1,000	1,238	2,196	4,967
Total Monies Declared at Port of Entry	67,150,000	127,962,000	169,123,000	176,536,000	540,771,000
Total Money of Applicants with a Positive Final Disposition	1,173,995,000	2,312,085,000	3,492,264,000	4,571,753,000	11,550,097,000
Average Money at Port of Entry	125,985	127,962	136,610	80,390	108,873
Average Money Available	2,202,617	2,312,085	2,820,892	2,081,855	2,325,367

Source: Employment and Immigration Canada, *Business Immigration: Immigrant Investor Program, 1989 to 1992*, April 1, 1993.

Table 27. Distribution of Investing Immigrants by City of Destination, Canada, 1992

City	Number	Distribution
Vancouver	4,098	43.8
Montreal	1,931	20.6
Toronto	1,748	18.7
Calgary	315	3.4
Halifax	225	2.4
Regina	104	1.1
Winnipeg	79	0.8
Edmonton	71	0.8
Saskatoon	58	0.6
Hamilton	53	0.6
Ottawa-Hull	27	0.3
Windsor	17	0.2
St-John's	15	0.2
Victoria	13	0.1
London	11	0.1
St-Catharines-Niagara	6	0.1
Kitchener	4	0.0
Other Cities	586	6.3
Total	9,361	100.0

Source: Employment and Immigration Canada, *Business Immigration: Immigrant Investor Program*, Statistical Highlights, 1989 to 1992, April 1, 1993.

Table 28. Distribution of Investing Immigrants by Country of Origin, Canada, 1992

Country of Origin	Number	Distribution
Hong Kong	993	45.2
Taiwan	928	42.3
South Korea	60	2.7
Philippines	55	2.5
Egypt	27	1.2
England	12	0.5
Jordan	10	0.5
United States	7	0.3
Saudi Arabia	5	0.2
Switzerland	2	0.1
Other Countries	97	4.4
Total	2,196	100.0

Source: Employment and Immigration Canada, *Business Immigration: Immigrant Investor Program*, Statistical Highlights, 1989-1992, April 1, 1993.

From 1989 to 1992, these investors brought into Canada, in addition to the investment for which they were accepted as immigrants, \$109,000 per principal applicant for immigrant status (Table 26). In fact, each of these immigrants brought or was prepared to bring an average of \$2,325,000 into Canada. As might have been expected, it was the three major census metropolitan areas which received these immigrants (in 1992 Vancouver 44%, Toronto 19%, Montreal 21%) (Table 27), although we might be somewhat surprised by the fact that Toronto was in the third place. *Nearly 9 out of 10 (87.5%) of these investors came from only two countries in 1992, Hong Kong (45.2%) and Taiwan (42.3%).* The remaining 12.5% was divided among the other countries of the world, and of these, *South Korea was responsible for 2.7% and the Philippines 2.5% (Table 28).*

Refugees

Canada is certainly one of the most open countries for those seeking asylum. Every year, agents visit refugees camps and select a certain number of people likely to settle successfully in Canada. When these people set foot on Canadian soil, they are already cleared and are included among the immigrants admitted as refugees. But there are others who make their own way to Canada and request asylum. The majority of them arrive at the Canada/United States border. These people are then investigated by Employment and Immigration Canada, following which they are either admitted as immigrants or refused this status.

Table 29. Number of Refugee Demands in Canada, Individuals Accepted or Refused as Landed Immigrants and Withdrawn Requests

Year	Demands	Accepted	Refused	Withdrawn
1989	20,267	4,744	562	70
1990	36,198	10,710	2,913	374
1991	30,530	19,425	7,516	1,339
1992	37,720	17,437	9,871	1,867

Source: Statistical Summary, Immigration and Refugee Board Commission, Refugee Determination Division.

A certain number drop their applications. Those who were refused status may appeal this decision, which involves procedures that to date have proved lengthy. Table 29 gives the figures for recent years of asylum-seekers, those admitted and refused and applications abandoned. It must be borne in mind that the accounts are not "closed" each year, since processing of applications takes time and there is always a waiting list of people who arrived the previous year or earlier.

It can be seen that the number of people admitted was fairly large in terms of the number of applicants. The figures in Table 29 for the four years in question would appear to indicate that close to 42% of applications are accepted, 17% rejected and 3% dropped. *This percentage of admissions was considerably higher than for any of the other OECD countries.*

For example, according to information from SOPEMI,⁷ requests for asylum in the Netherlands rose from 7,500 in 1988 to 13,900 in 1989 and 21,208 in 1990, but the number recognized as refugees was 1,428 in 1990.

In Germany, the number of applicants rose from 121,318 in 1989 to 193,063 in 1990, but the percentage recognition of refugee status, which had reached 29.2% in 1985, fell to 4.4% in 1990. In Norway, only 3% of applicants were accepted in 1990 and 60% did not receive permission to remain in the country. In Sweden, the quota for 1991-1992 was set at 3,250, and the number of applications in 1990 was 29,400. Switzerland accepted 571 people as refugees in 1990 out of a total of 35,836 applicants.

It should also be emphasized that people who are refused immigrant status are not always deported. They should, like those who abandon their application, leave the country, but there is no guarantee of this. They may attempt to live there illegally, being either counted or missed by censuses, joining those who remain in the country when their work permits or student visas expire, increasing the ranks of illegal immigrants, the total number of which of course cannot be determined.

⁷ Continuous Reporting System on Migration.

Some International Comparisons

The other major countries that traditionally attract permanent immigrants are Australia and the United States, and they may thus be compared with Canada. Based on information supplied by SOPEMI (Continuous Reporting System on Migration), the United States, excluding legalizations under IRCA (Immigration Reform Control Act), admitted in recent years a little over 600,000 people a year for a population in the order of 250 million, for a rate of less than 2.5 per 1,000; Australia some 130,000, for a population of 17 million, or 7.6 per 1,000. Canada, with 250,000 immigrants for a population of 28.5 million, or 8.8 per 1,000, thus ranks first among the three.

In Australia, immigrants from Asia (not including western Asia) accounted for 35% of those admitted in 1990, and people from the United Kingdom for 28%. Third place went to immigrants from Oceania (11%). But the figures show that this country varies its sources of immigrants. For example, those from southern Europe represented 5.9% of immigrants in 1983, 6.4% in 1986 and 3.1% in 1990. Immigrants from Oceania in 1988 represented 21% of all arrivals and less than 9% in 1983.

Leaving aside the granting of status to illegal Mexican immigrants under IRCA, the majority of immigrants to the United States come from Asia (41% in 1988). Second place was shared by Mexicans and West Indians (17%), while Europe contributed 10% and South America 6%. Because of quotas, there are not, as in Australia, significant fluctuations from one year to the next.

The three countries admit refugees differently. On average, for the years 1988, 1989 and 1990, refugees represented about 15% of all immigrants to the U.S., while they amounted to 8% in Australia and 5.3% in Canada. However, the number of immigrants and size of the population are not the same and, given varying degrees of delay in procedures, we should not jump to the conclusion that attitudes are fundamentally different in the three countries.

Family reunification is also a policy common to all three countries, but since the categories are not the same, even numerical comparisons by period, to reduce random annual variations, might be misleading as to the levels in each country.

Traditionally the European countries are distinguished from so-called host countries. This custom originates in the fact that, from the 16th and 17th centuries on, Europe has mainly been an area of emigration to the Americas and Australia rather than receiving immigrants from the rest of the world. The basis for this distinction is now becoming increasingly weak. On the one hand, the Americas and Australia lose population each year through significant volumes of emigration. On the other, although the countries of the New World were formerly settlement countries as opposed to European countries where immigration was quite often temporary for reasons of work, the difference tends to diminish over time since *the main motive for migration anywhere is the*

Table 30. Inflows of Foreign Population into OECD Countries, 1980-1990 (in thousands)¹

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Belgium	46.8	41.3	36.2	34.3	37.2	37.5	39.3	40.1	38.2	43.5	52.3
France ²	59.4	75.0	144.4	64.2	51.4	43.4	38.3	39.0	44.0	53.2	63.1
Germany	523.6	451.7	275.5	253.5	295.8	324.4	378.6	414.9	545.4	649.5	...
Luxembourg	7.4	6.9	6.4	6.2	6.0	6.6	7.4	8.3	9.0	9.1	...
Netherlands	78.5	49.6	39.7	34.4	34.7	40.6	46.9	47.4	50.8	51.5	60.1
Norway ³	11.8	13.1	14.0	13.1	12.8	14.9	16.5	15.2	16.4	14.0	11.7
Sweden ⁴	...	...	...	18.3	14.1	13.4	19.4	19.0	24.9	28.9	23.9
Switzerland ⁵	70.5	80.3	74.7	58.3	58.6	59.4	66.8	71.5	76.1	80.4	101.4
United Kingdom ⁶	69.8	59.1	53.9	53.5	51.0	55.4	47.8	46.0	49.3	49.7	52.4

¹ Population register data, except for France and the United Kingdom. Asylum-seekers are excluded.

² Entries of new foreign workers, including holders of provisional work permit (APT) and foreigners admitted on family re-unification grounds. Does not include residents from EEC countries (workers and family members) who have not been brought in by the International Migration Office (OMI).

³ Entries of foreigners intending to stay longer than six months in Norway.

⁴ Some short duration entries are not counted (mainly citizens of other Nordic countries).

⁵ Entries of foreigners with annual residence permits and those with settlement permits (permanent permits) who return to Switzerland after a temporary stay abroad. Includes, up to December 31st 1982, holders of permits of durations below 12 months. Seasonal and frontier workers (including seasonal workers who obtain permanent permits) are excluded.

⁶ Entries correspond to permanent settlers within the meaning of the 1971 Immigration Act and subsequent amendments.

Source: SOPEMI 1992.

possibility of finding work. Considerable improvements in communications increasingly favour the growing exchanges of professionals, scientists and technicians, and there is increasing administrative flexibility between developed countries. It also seems clear that the great problems experienced with migration by developed countries are caused by arrivals from the Third World, the majority of whom are not used to the work situation in the host country, and this is true for both Europe and the newer countries. For the moment, there persists a very significant difference between the European countries and newer countries, that of the status of "foreigner". Holders of this title in Europe may reside in a country for a very long period, sometimes even their whole lives, without becoming permanent residents and with much more limited rights and privileges than the citizens of the country. This situation is fairly uncommon in North America, where it is still fairly easy to obtain citizenship.

For the moment, the European countries do not keep uniform accounts of migrations. Each uses its own categories, thus making overall comparisons almost impossible (see 1991 Report, Part II). We will accordingly confine ourselves to reproducing recent SOPEMI data which show that immigration is proportional neither to the size of a country nor to that of its population.

Immigrants and Language

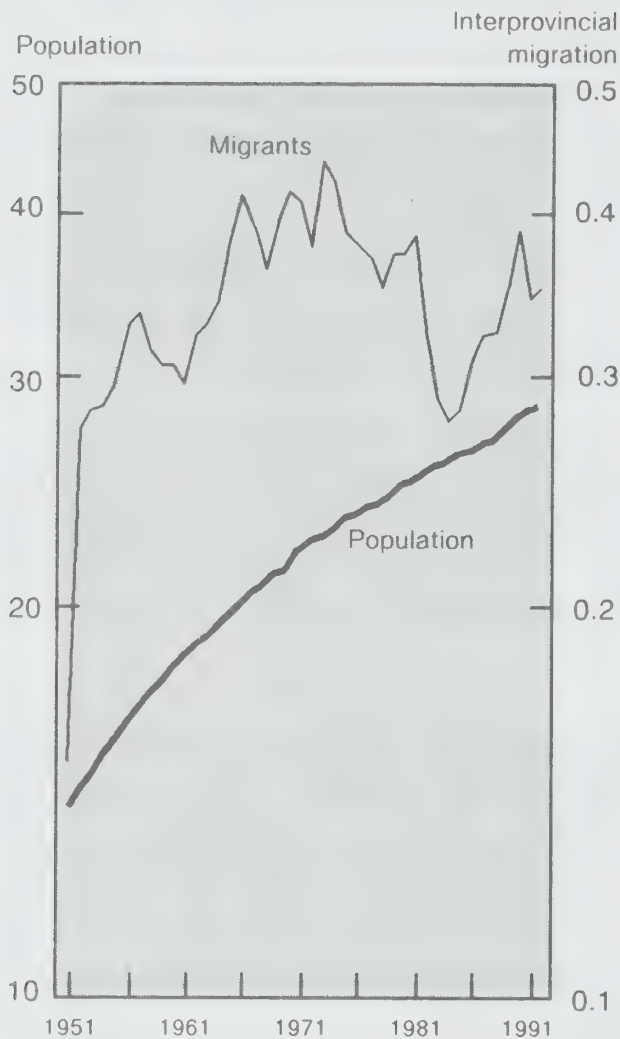
With the diversification of countries of origin, the proportion of immigrants speaking neither of the official languages is on the rise. Based on statistics from Employment and Immigration Canada, this proportion was a third around 1978 and in recent years has been around half, although the most recent trend is downward (50% in 1989, 47% in 1990 and 44% in 1991). Since close to 60% of immigrants are headed for the labour force, the need to learn one language or the other, or even both, is quickly felt. Canada provides these immigrants with courses to aid in their integration. *According to census figures, despite the arrival of many people who spoke neither language, there were only 378,000 people in this situation in 1991!* Even though some respondents tended to overestimate their abilities somewhat, the fact remains that figures like these are an indication of remarkable performance.

INTERPROVINCIAL MIGRATION

The mobility of a population is fairly closely linked to the economic vitality of the country, provided we bear in mind there is often some lag between the economic indicators and demographic reactions, particularly when an annual observation unit is used. In Figure 8, we can clearly see the effects of the recession of the first half of the 1980s. The drop in the curve from 1990 to 1991 may well be destined to continue in 1992 and not rise as preliminary figures may have indicated. Since 1972, there has also been a general trend towards lower mobility, whereas since the 1950s this factor moved to a certain extent in parallel with the growth of the population.

Figure 8

**Canadian Population and
Interprovincial Migration,
1950 to 1992 (in millions)**



Source: Statistics Canada, Demography Division, Estimates Section.

There are no surprises in the 1991 figures; *the two far western provinces and particularly British Columbia are the only provinces with a positive balance* if we consider Nova Scotia's gain of 1,400 people as an exception.

The negative balance in Quebec, which was smallest in 1986 (-3,020), has since worsened from one year to the next (-11,690 in 1991) (Table 31). Curiously enough, the Ontario balance was only marginally negative, and preliminary figures for 1992 do not show this province losing to any greater degree. The recession which, according to economic indicators, affected Ontario more severely than the rest of Canada, apparently failed to cause as many departures as had been feared. Closer examination indicates that the movements could only have been toward Alberta and British Columbia, since the other provinces had little or nothing to offer people who were not economically at ease in Ontario. Ontario did in fact chalk up deficits with these two provinces in 1991 (4,105 with the former and 11,470 with the

latter) (Table 32). The Ontario population is currently trapped to a certain extent. At the very most, we might have expected new arrivals to be pushed back to the Atlantic Provinces, as in the second half of the 70s when a nil balance (-316) was observed. It is a common observation that, when hard times come, immigrants prefer to experience them in their home region.

Preliminary figures for 1992 (Table 33) show a negative balance of 3,600 for Newfoundland, although this might be higher when the final figures become available; continued high losses for the Prairies (Manitoba and Saskatchewan), mainly to the far-western provinces; an increase in the negative balance for Quebec, mainly to Ontario, and an overall deficit for the Atlantic Provinces with Ontario in the order of 2,500 people, due to job losses in the fishing industry.

Table 31. Net Migration for Provinces and Territories, 1970-1992

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon and N.W.T.	Total
1970	-5,950	-29	-3,967	-2,373	-41,156	54,590	-7,707	-28,358	9,898	22,579	2,473	412,559
1971	733	-129	-755	1,798	-25,005	18,580	-7,251	-17,986	2,408	25,034	2,573	405,301
1972	-189	858	2,845	241	-19,891	8,227	-7,735	-17,296	6,538	24,927	1,475	375,185
1973	-2,510	478	2,107	2,841	-14,730	-5,275	-2,200	-13,261	2,698	30,537	-685	433,993
1974	-618	1,386	1,576	4,192	-11,852	-22,163	-5,400	-4,835	14,810	22,655	249	421,336
1975	915	814	4,454	7,572	-12,340	-25,057	-4,134	6,555	23,463	-2,864	622	385,327
1976	-2,732	309	361	1,640	-20,801	-10,508	-3,655	3,819	34,215	-1,490	-1,158	376,971
1977	-4,009	614	-1,277	-886	-46,536	8,596	-3,789	384	32,344	15,507	-948	366,918
1978	-3,540	25	-109	-1,644	-33,424	415	-9,557	-3,701	31,987	20,698	-1,150	348,929
1979	-4,217	-225	-1,840	-2,219	-30,025	-15,317	-13,806	-3,510	39,212	33,241	-1,294	370,862
1980	-3,082	-1,082	-2,494	-4,165	-24,283	-34,919	-11,342	-4,382	46,933	40,165	-1,349	372,167
1981	-6,238	-783	-2,465	-4,766	-22,549	-19,665	-3,621	-520	40,243	21,565	-1,201	380,041
1982	261	-6	1,591	2,183	-28,169	19,614	1,498	1,743	3,961	-2,019	-657	322,634
1983	-1,092	799	3,861	2,296	-19,080	32,825	950	2,501	-26,246	4,029	-843	285,599
1984	-3,585	524	2,963	812	-10,943	36,691	-49	733	-30,591	3,505	-60	273,323
1985	-5,019	-13	-234	-1,559	-6,023	33,414	-1,755	-5,014	-9,568	-3,199	-1,030	281,275
1986	-4,682	-493	-739	-2,897	-3,020	42,916	-3,039	-7,020	-20,293	910	-1,643	302,352
1987	-4,374	301	-2,183	-1,762	-7,410	40,278	-4,751	-9,043	-27,595	17,618	-1,079	318,890
1988	-2,154	424	71	-1,215	-7,003	14,898	-8,584	-16,338	-5,535	25,865	-429	323,685
1989	-2,606	-102	572	-21	-8,379	-1,205	-10,004	-18,589	3,366	37,367	-399	347,990
1990	-1,137	-273	-106	1,014	-9,567	-15,117	-8,613	-15,928	11,055	38,704	-32	332,637
1991	-1,636	-1,577	1,388	-1,771	-11,690	-5,591	-7,898	-9,926	5,891	32,263	547	341,005
1992	-3,626	504	-2,132	-1,890	-15,497	-2,956	-6,513	-8,472	-1,278	41,240	620	348,568
Total	-61,087	2,324	3,488	-2,579	-429,373	153,271	-128,955	-168,444	187,916	448,837	-5,398	8,127,547

Note: From 1970 to 1976 and in 1992, data are provided by Family Allowance Files. From 1977 to 1991, data are provided by Revenue Canada Tax files.

Source: Statistics Canada, Demography Division, Estimates Section.

Table 32. Annual Number of Interprovincial Migrants from Revenue Canada Tax Files and Family Allowance Files, January to December 1991

Total Number of Migrants: 341,005

Province of Origin	Province of Destination											
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon	N.W.T.
Newfoundland	-	233	2,082	801	358	5,567	246	115	1,382	1,119	44	166
Prince Edward Island	170	-	1,508	565	170	1,119	116	77	539	389	-	14
Nova Scotia	1,546	721	-	2,884	1,102	8,194	669	350	2,043	2,279	40	227
New Brunswick	558	449	3,568	-	2,540	5,211	579	190	1,337	1,321	55	65
Quebec	286	139	1,369	2,468	-	25,383	747	290	3,089	4,522	22	268
Ontario	6,196	951	8,163	5,006	17,125	-	5,464	2,363	15,817	22,372	204	728
Manitoba	117	87	594	376	843	7,383	-	2,858	6,148	7,188	45	237
Saskatchewan	132	40	325	213	539	2,742	2,952	-	14,547	6,286	179	410
Alberta	905	295	1,795	1,046	1,832	11,712	3,754	8,785	-	29,213	559	1,214
British Columbia	404	115	1,860	701	2,152	10,902	3,212	3,210	20,060	-	1,082	518
Yukon	57	-	29	7	31	180	58	37	431	989	-	58
Northwest Territories	106	60	150	35	201	405	181	164	1,608	801	170	-
In	10,477	3,090	21,443	14,102	26,893	78,798	17,978	18,439	67,001	76,479	2,400	3,905
Out	12,113	4,667	20,055	15,873	38,583	84,389	25,876	28,365	61,110	44,216	1,877	3,881
Net Migration	-1,636	-1,577	1,388	-1,771	-11,690	-5,591	-7,898	-9,926	5,891	32,263	523	24

Source: Statistics Canada, Demography Division, Estimates Section.

Table 33. Annual Number of Interprovincial Migrants from Family Allowances Files,
January to December 1992

Total Number of Migrants: 348,568

Province of Origin	Province of Destination											
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon	N.W.T.
Newfoundland	-	211	2,099	844	297	5,873	201	120	1,622	1,045	66	168
Prince Edward Island	69	-	625	374	141	732	53	71	262	150	4	20
Nova Scotia	1,329	665	-	2,709	1,358	8,757	617	389	2,355	2,966	37	71
New Brunswick	451	560	3,011	-	2,799	5,760	417	195	1,318	1,267	41	46
Quebec	292	247	1,314	2,729	-	28,124	804	449	3,068	5,935	58	267
Ontario	5,038	923	7,351	5,047	17,716	-	5,201	2,984	14,173	26,381	359	545
Manitoba	259	23	790	392	821	6,570	-	2,501	6,170	7,191	114	263
Saskatchewan	87	27	310	134	453	2,622	3,697	-	13,569	6,667	303	310
Alberta	673	192	1,591	976	1,780	12,422	4,018	9,381	-	31,790	588	1,168
British Columbia	576	111	1,934	714	2,192	11,367	3,297	3,352	19,001	-	1,025	373
Yukon	32	-	30	19	51	118	15	79	318	985	-	57
Northwest Territories	114	46	66	37	182	417	261	186	1,445	805	341	-
In	8,920	3,005	19,121	13,975	27,790	82,762	18,581	19,707	63,301	85,182	2,936	3,288
Out	12,546	2,501	21,253	15,865	43,287	85,718	25,094	28,179	64,579	43,942	1,704	3,900
Net Migration	-3,626	504	-2,132	-1,890	-15,497	-2,956	-6,513	-8,472	-1,278	41,240	1,232	-612

Source: Statistics Canada, Demography Division, Estimates Section.

MIGRATION TRENDS IN CENSUS METROPOLITAN AREAS IN CANADA

Population concentration appears to be a universal model, and in Canada, the trend is to concentration in the metropolitan areas of the country. Obviously the concept of the census metropolitan area (CMA) does not correspond to that of the city, since in a census metropolitan area the urban population is specifically distinguished from the rural population. However, this rural population still represents only a small fraction of the total population. In the 1991 census, of the 16,665,360 people counted in census metropolitan areas, 1,189,635 only, or 7.1%, were classified as rural, and almost all were non-farming (93%), that is, for all practical purposes, people living almost directly from and with the large central city. This trend towards concentration translates into faster growth of the population of census metropolitan areas than of the country as a whole. From 1981 to 1986, the Canadian population increased by 4.3% while that of the census metropolitan areas increased by 6%, and *during the five-year period 1986-1991, total growth for the country was 6.2% and for census metropolitan areas 10%*. The result of these differences is that the population of census metropolitan areas, which accounted for 58.8% of the total population in 1981, represented 61.1% in 1991.

It seemed worthwhile to examine how these centres grew. There is no doubt that on-site growth (which is not exactly a natural increase in the population of a census metropolitan area), by the action of births and deaths, make up a large proportion of the growth in each (Table 34) but since this non-differential growth is proportional to the size of the census metropolitan area it arouses no interest. Conversely, it is the migratory flows that are intriguing insofar as they are an indication of interest in the region. We thus attempted to answer the question: "Where did the people come from who were counted in the various census metropolitan areas in 1991 and who were not there five years earlier", and to identify a few flow patterns. Table 34 provides a sort of summary of the components of this movement.

Of course, the only possible estimates using census data are based on figures at the end of the period, the total number of flows remaining unknown. The people from whom information is obtained are only people over five years old who have avoided death and international migration, but their movements during the five-year period lie outside the question. In the main, however, the general profile of population change should not be affected by the limitations of these data.

Although it is expected that part of the growth should come from non-urban areas, we would also expect that, since over 60% of the population lives in census metropolitan areas, there should be many exchanges between them and these should partially explain the differential growth. The pages that follow will therefore present the movements of the recent period. Changes in the geographical breakdown were minimal.

Table 34. Growth Components of Census Metropolitan Areas, 1986-1991

	Total Gain 1986-1991 (1)	Net Between Census Metropolitan Areas (2)	Net with Rest of Country (3)	External Migration (4)	Growth on Site (1) - ((2) + (3) + (4)) (5)	Growth Due to External Migration (4) ÷ (1) (in %)	Growth Due to Net Internal Migration ((2) + (3)) ÷ (1) (in %)	Part of the Growth on Site (5) ÷ (1) (in %)
St-John's	9,955	-3,975	5,610	1,675	6,645	17	16	67
Halifax	24,579	-4,145	4,900	5,635	18,190	23	3	74
St-John	3,716	-1,040	435	870	3,451	23	-16	93
Chicoutimi	2,460	-5,655	1,630	535	5,950	22	-164	242
Québec	42,283	-6,815	15,650	5,620	27,825	13	21	66
Trois-Rivières	7,415	-2,175	3,750	275	5,565	4	21	75
Sherbrooke	9,234	-3,035	2,870	1,705	7,694	18	-2	83
Montréal	205,885	-10,625	-20,000	124,005	112,505	60	-15	55
Ottawa-Hull	101,594	17,625	7,385	38,735	37,849	38	25	37
Oshawa	36,561	21,595	-5,735	4,905	15,796	13	43	43
Toronto	461,065	-32,500	-82,490	358,405	217,650	78	-25	47
Hamilton	42,931	12,755	-8,980	18,255	20,700	43	9	48
St-Catherine	21,294	6,885	55	6,260	8,094	29	33	38
London	39,220	3,105	2,575	14,645	18,895	37	14	48
Kitchener	45,226	12,870	-2,875	14,790	20,440	33	22	45
Windsor	8,087	-3,445	-2,155	8,745	4,945	108	-69	61
Sudbury	8,936	-30	2,660	725	5,385	8	30	62
Thunder Bay	2,210	-2,315	-1,075	1,205	4,395	55	-153	199
Winnipeg	27,050	-18,565	-590	21,160	25,045	78	-71	93
Regina	5,171	-9,985	2,200	2,605	10,350	50	-151	200
Saskatoon	9,358	-13,925	3,485	3,435	16,365	37	-112	175
Calgary	82,580	1,470	1,600	33,435	46,075	40	4	56
Edmonton	65,898	-17,940	6,200	30,015	47,625	46	-18	72
Vancouver	221,773	46,970	-7,050	119,735	62,115	54	18	28
Victoria	32,672	12,890	-6,640	6,630	19,790	20	19	61

Note: The Census Metropolitan Areas are distributed geographically from east to west.

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222.

Eastern Canada

It was observed that, in general, Ontario census metropolitan areas, particularly those in southern Ontario (Hamilton, St. Catharines, London, Kitchener and Windsor) recruited a large percentage of their immigrants in the other census metropolitan areas, particularly in the same region (Table 35, Column 3). Calgary, Vancouver and Victoria were in the same situation. For those in eastern Canada, northern Ontario and the Prairies, however, immigrants from other census metropolitan areas represented a lower percentage of all the population attracted. As an example, in St. Catharines, immigrants from another census

Table 35. Percentage Distribution of In- and Out-Migrants According to Some Geographical Characteristics by Census Metropolitan Areas, 1986-1991

	Population Coming from Outside the Province (1)	Population Coming from a CMA Outside the Province (2)	Population Coming from a CMA (3)	Population Leaving a CMA for a Region Other than a CMA (4)
St-John's	67	24	24	49
Halifax	73	36	36	54
St-John	46	34	34	59
Chicoutimi	19	5	39	34
Québec	14	7	36	44
Trois-Rivières	4	3	33	47
Sherbrooke	8	5	36	47
Montréal	29	20	41	60
Ottawa-Hull	52	35	56	48
Oshawa	14	8	76	55
Toronto	44	34	65	48
Hamilton	18	15	74	45
St-Catherine	18	10	71	37
London	17	13	53	48
Kitchener	16	10	61	55
Windsor	25	13	52	46
Sudbury	16	13	42	51
Thunder Bay	37	21	43	51
Winnipeg	66	33	33	47
Regina	45	23	36	42
Saskatoon	44	19	30	44
Calgary	64	39	52	48
Edmonton	56	28	38	49
Vancouver	59	51	56	64
Victoria	48	44	61	50

metropolitan area represented 71% of the total but only 10% came from a census metropolitan area in another province (Table 35, Column 2). In other words, these census metropolitan areas exchanged population mainly with each other and then with Toronto, Ottawa, Thunder Bay and Sudbury.

In Quebec, all census metropolitan areas received relatively small proportions from other census metropolitan areas in the province (in the order of 35%: Table 35, Column 3) but *very small proportions from census metropolitan areas in the rest of the country*; in general, they received very little population that was not from Quebec (Table 35, Column 1).

The Atlantic Provinces were in a special situation since there is at most only one census metropolitan area per province. The proportion of immigrants from a province other than where the census metropolitan area was located, was accordingly fairly high.

From these observations, we conclude that in Quebec and the Atlantic Provinces, census metropolitan areas recruit their immigrants in smaller towns or rural areas. In the province of Quebec, the phenomenon of a local recruitment was particularly clear since, *with the exception of Montreal, no census metropolitan area recruited 20% of its immigrants outside the province* (Table 35, Column 2).

Western Canada

This situation is in contrast to that which prevailed in all of Western Canada where from 44% in Saskatoon to 66% in Winnipeg, immigrants came from a province other than that in which the census metropolitan area in question is located. Each of the western census metropolitan areas, of which there are few, recruited differently, both in the country's census metropolitan areas (30% in Saskatoon and 61% in Victoria) and in smaller cities.

Another Approach

The residual number of movements⁸ between 1986 and 1991 of people living in Canada's census metropolitan areas in 1986 (and still living in 1991) was considerable. There were 775,870 movements between census metropolitan areas. As well, 718,160 people from regions other than census metropolitan areas moved to one of the 25 census metropolitan areas during this period, and 780,535 left one census metropolitan area to live elsewhere in the country. *All other things being equal, there was thus a tendency for people living in census metropolitan areas in 1986 to abandon these metropolitan regions to a certain extent for smaller communities (62,375 people).* This observation is not in contradiction with the general trend mentioned at the outset, which includes on-site growth.

⁸ These are always balances.

In all census metropolitan areas combined, 804,945 people were counted at the end of the period who were not in Canada in 1986. We should not be surprised that this figure is higher than the number of immigrant entries over the period, since among the people not living in Canada, some were Canadians who were living abroad. Even then, the overwhelming majority were actually immigrants (approximately 563,580). We must also assume that there were some deaths and departures among these immigrants.

Major Trends

Of all census metropolitan areas, with the exception of Calgary, the nine census metropolitan areas that gained population were in Ontario and British Columbia (Table 36). All those east of Ottawa were on the list of losers.

For the five-year period 1986-91, Vancouver was the census metropolitan area which recorded the highest gains (46,970). With the exception of some very minimal losses to Oshawa and Victoria, it gained from all the others. From Calgary and Edmonton it gained over 18,000 people, almost 7,000 from Toronto and over 7,500 from Winnipeg.

Table 36. Net Migration Between Census Metropolitan Areas, Canada, 1986-1991

Census Metropolitan Areas Showing Gains		Census Metropolitan Areas Showing Losses	
Ottawa-Hull	17,625	St-John's	3,975
Oshawa	21,595	Halifax	4,145
Hamilton	12,755	St-John	1,040
London	3,105	Chicoutimi	5,655
St-Catherine	6,885	Québec	6,815
Kitchener	12,870	Trois-Rivières	2,175
Calgary	1,470	Sherbrooke	3,035
Vancouver	46,970	Montréal	10,625
Victoria	12,890	Toronto	32,500
		Windsor	3,445
Total	136,165	Sudbury	30
		Thunder Bay	2,315
		Winnipeg	18,565
		Regina	9,985
		Saskatoon	13,925
		Edmonton	17,940
		Total	136,170

Since Toronto is the largest census metropolitan area, it was also the one that recorded the largest number of moves (308,010), but it is also the one that lost the most in its exchanges (32,500). The main losses were due to exchanges with Oshawa (20,074), Hamilton (11,975) and Kitchener (9,975) and the largest gains were due to exchanges with Montreal (10,280 losses compared to 23,410 gains).

Montreal, a city almost three times the size of Vancouver, experienced hardly any more moves (144,305). The Quebec metropolis gained in all its exchanges with census metropolitan areas in the province of Quebec and the Atlantic Provinces and lost with almost all census metropolitan areas located in the west; the minimal gains, numbering only a few hundred, were with Windsor (845), Edmonton (230) and Winnipeg (175). *Overall, Montreal seemed to draw population from the eastern part of the country and lose it to the west, thus participating in the East-to-West shift of the Canadian population from one birth cohort to another.*

Ottawa, because of its role as the national capital, behaves in a special way. Exchanges are numerous for a city of this size (105,895), and it gained in all its exchanges with the other census metropolitan areas, except for Victoria and Vancouver.

Relations Between Census Metropolitan Areas and Non-Metropolitan Areas

Census metropolitan areas maintain exchanges with the rest of the country, and the number of movements is in the same order of magnitude as between census metropolitan areas. It would be difficult to analyse in detail all types of movements (census metropolitan area and census agglomeration, census metropolitan area and rural areas, etc.), and we will thus look mainly at the level of relations between census metropolitan areas and the rest of the country as a whole.

We see that in these exchanges (Table 37), there were more census metropolitan areas that gained (16) than census metropolitan areas that lost (9). However, the 16 winners gained less people (67,645) than the 9 losers lost (130,950). The largest positive balance was in the Quebec City CMA and the big loser was Toronto. In recruitment of migrants from census agglomerations (CA) we can see that the majority are almost always from the province in which the census metropolitan areas are located. In other words, this is mainly local recruitment (Table 38).

It can be seen that Quebec is highly self-sufficient, but so are the Ontario census metropolitan areas, as shown in their exchanges with the other census metropolitan areas.

Table 37. Gains, Losses and Net Migration of the 25 Census Metropolitan Areas in Their Exchanges Between Themselves and With Non-Metropolitan Areas

	Gains	Losses	Net Gain		Gains	Losses	Net Losses
Calgary	51,375	49,775	1,600	Hamilton	15,330	24,305	8,980
Chicoutimi	6,815	5,185	1,630	Kitchener	19,820	22,695	2,875
Edmonton	60,090	53,890	6,200	Montréal	97,930	117,035	20,000
Halifax	27,970	23,070	4,900	Oshawa	11,385	17,120	5,735
London	23,790	21,215	2,575	Thunder Bay	5,840	6,915	1,075
Ottawa	47,795	40,410	7,385	Toronto	74,690	157,180	82,490
Québec	37,630	21,980	15,650	Vancouver	73,100	80,150	7,050
Regina	16,115	13,915	2,200	Windsor	7,875	10,030	2,155
Saskatoon	22,065	18,580	3,485	Winnipeg	31,720	32,310	590
Sherbrooke	11,425	8,555	2,870				
St-Catherine	9,255	9,200	55	Total	337,690	467,740	130,950
St-John's	13,685	8,075	5,610				
St-John	7,365	6,930	435				
Sudbury	10,900	8,240	2,660				
Trois-Rivières	10,040	6,290	3,750				
Victoria	24,140	17,500	6,640				
Total	380,455	312,810	67,645				

Source: Statistics Canada, 1991 Census, Mobility and Migration, Catalogue No. 93-322.

Table 38. Proportion of In-Migrants Coming From Census Agglomerations of the Province Among All In-Migrants Coming From Census Agglomerations, 1991

Census Metropolitan Areas	Pro-portion	Census Metropolitan Areas	Pro-portion
St-John's	43	London	82
Halifax	42	Kitchener	83
St-John	57	Windsor	74
Chicoutimi	77	Sudbury	93
Québec	90	Thunder Bay	73
Trois-Rivières	98	Winnipeg	44
Sherbrooke	95	Regina	66
Montréal	85	Saskatoon	64
Ottawa-Hull	60	Calgary	48
Oshawa	75	Edmonton	55
Toronto	72	Vancouver	80
Hamilton	89	Victoria	90
St-Catherine	74		

Source: Statistics Canada, 1991 Census, unpublished data.

Census Metropolitan Areas and International Migration

The last category of people who influence the numerical development of census metropolitan areas by their movements is international immigrants. Obviously, and this is worth reiterating, given the intrinsic nature of censuses, we can only determine the number of surviving immigrants. Since mortality in this group is fairly low (approximately 3 per 1,000), we may make an approximate comparison of the numbers admitted and surviving with those counted by the census. There were some 813,000 surviving immigrants in Canada of those who arrived in the five years prior to the census;⁹ however, the census counted 563,580¹⁰ in census metropolitan areas, or 69%. Proportionately speaking, these immigrants were thus slightly more heavily concentrated in census metropolitan areas than the Canadian population as a whole (61%) without assuming what effect internal migration could have on them. Table 39 demonstrates that in approximate terms, it was again the three largest census metropolitan areas, those of southern Ontario and Alberta, which attracted immigrants, while those in Quebec, the Maritimes and the Prairies aroused little interest.

Table 39. Population Aged Five Years and Over, Living Outside Canada Five Years Ago and Received as Immigrants Between 1986 and 1991, by Census Metropolitan Areas

Census Metropolitan Areas	Number	Census Metropolitan Areas	Number
St-John's	680	Kitchener	10,770
Halifax	2,700	Windsor	6,120
St-John	470	Sudbury	330
Chicoutimi	130	Thunder Bay	720
Québec	2,375	Winnipeg	15,240
Trois-Rivières	145	Regina	1,735
Sherbrooke	1,025	Saskatoon	1,680
Montréal	80,115	Calgary	22,645
Ottawa-Hull	23,095	Edmonton	21,245
Oshawa	3,665	Vancouver	87,410
Toronto	250,950	Victoria	3,055
Hamilton	12,910		
St-Catherine	3,535		
London	10,835	Total	563,580

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222 and unpublished data.

⁹ Not to be confused with external migrants shown in Table 1.

¹⁰ 1990 Census Special tabulation.

Conclusion

This short analysis of the situation in the five-year period 1986-1991 allows us to make only a few general remarks on the growth of census metropolitan areas. The figures do not lend themselves to detailed analyses, since they come from a 1/5 sample, they are not directly comparable with 100% population enumerations and even less with those derived from changes in the population (births and deaths).

- (1) It would appear that *balances were modest compared to the flows which engendered them* and of which we have an estimate in the annual accounts of interprovincial migration (see section on internal migration).
- (2) Apart from a degree of correlation between the size of the CMA and its power of attraction, there *does not appear to be a net model of the organization of movements*. These appear to be linked to non-demographic factors, probably mainly economic, and subject to rapid change.

Table 40. Net Migration by Census Metropolitan Areas, 1986-1991

	Net with Non- CMA	Net Between CMA	Total Internal Migration	Inter- national Migration	Total
St-John's	5,610	- 3,975	1,635	680	2,315
Halifax	4,900	- 4,145	755	2,700	3,455
St-John	435	- 1,040	- 605	470	- 135
Chicoutimi	1,630	- 5,655	- 4,025	130	- 3,895
Québec	15,650	- 6,915	8,835	2,375	11,210
Trois-Rivières	3,750	- 2,175	1,575	145	1,720
Sherbrooke	2,870	- 3,035	- 165	1,025	860
Montréal	- 20,000	- 10,625	- 30,625	80,115	49,490
Ottawa	7,385	17,625	25,010	23,095	48,105
Oshawa	- 5,735	21,595	15,860	3,665	19,525
Toronto	- 82,490	- 32,500	- 114,990	250,950	135,960
Hamilton	- 8,980	12,755	3,805	12,910	16,715
St-Catherine	55	6,885	6,940	3,535	10,475
London	2,575	3,105	5,600	10,835	16,515
Kitchener	- 2,875	12,870	9,995	10,770	20,765
Windsor	- 2,155	- 3,445	- 5,600	6,120	520
Sudbury	2,660	- 30	2,630	330	2,960
Thunder Bay	- 1,075	- 2,315	- 3,390	720	- 2,670
Winnipeg	- 590	- 18,565	- 19,155	15,240	- 3,915
Regina	2,200	- 9,985	- 7,785	1,735	- 6,050
Saskatoon	3,485	- 13,925	- 10,440	1,680	- 8,760
Calgary	1,600	1,470	3,070	22,645	25,715
Edmonton	6,200	- 17,940	- 11,740	21,245	9,505
Vancouver	- 7,050	46,970	39,920	87,410	127,330
Victoria	6,640	12,890	19,530	3,055	22,585

Source: Statistics Canada, 1991 Census, Catalogue No. 93-222.

- (3) In very general terms, *the population shift from east to west shows up in residual migration from census metropolitan areas* as well as concentration in the five major centres of Montreal, Toronto, southern Ontario and Vancouver, and to a lesser degree Calgary.
- (4) Total migration had a negative effect on the growth of six census metropolitan areas, all of which were located in relatively unprosperous regions (Table 40).

LABOUR FORCE

In most cases, labour economists analyse the activity of a population from a cross-sectional perspective. Time series thus show upward or downward movements in participation, employment, unemployment, etc. every year, in certain segments of life or by category of individuals. The analysis thus takes the form more of an examination of a segment of life or a category than of the individuals that comprise it. This results in frequent comments on such questions as youth unemployment, the participation rate of 20-40 year-olds or the income of seniors.

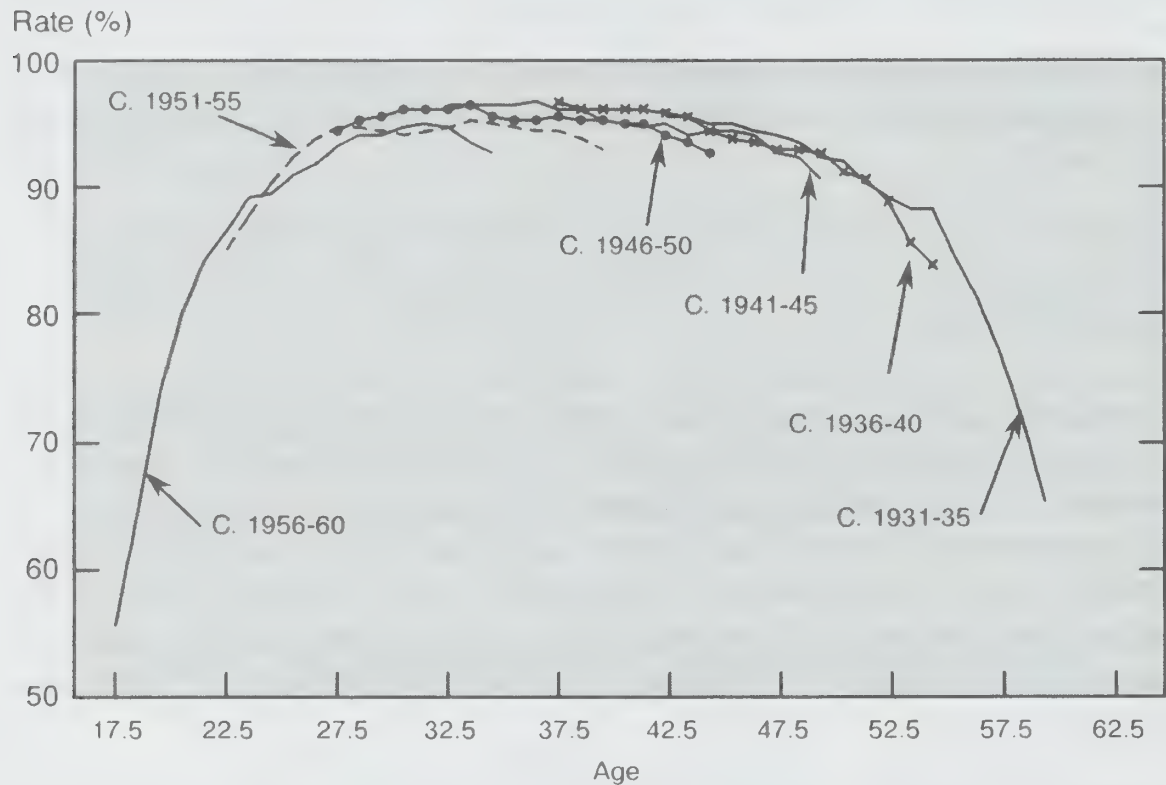
Considering that the activity of individuals and their social and demographic behaviour are interdependent, we can organize the information so as to envisage the histories, or at least fragments of the histories, of the life of birth cohorts so as to gain some measure of understanding of the attitudes or reactions of their members. In this case, we will be looking at those who, in the past 20 years, have experienced the disturbing economic events of the recessions. The base "materials" were the various rates (participation, unemployment, etc.) drawn from the Labour Force Survey. Unfortunately, the series is uniform only for the 17 years from 1975 to 1992.

To clearly show the main characteristics of the activity of individuals, we had to assign to each birth cohort, in a group of five, the average value for the group to measure levels and make comparisons. We are thus in the area of statistics, and far from the case study method. Once an average birth cohort has been identified (for example, the 1958 birth cohort, which summarizes those from 1956 to 1960), we simply had to follow it year after year at the successive ages of its members to determine how they lived in terms of work during the 17 years of life for which we have documentation and make a summary.

These histories, considered from the standpoints of work, employment and unemployment lend themselves to graphic representations which deliver messages that are sometimes strikingly clear. Attention will be drawn to those which seem to provide the most information.

Figure 9

Participation Rates for Males, According to the Average Cohorts, Canada, 1975-1992



Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

Males

Participation Rates

Even at ages of maximum activity, the participation rate is never 100% since there are always men who, for various reasons, among them physical disability, are not part of the labour force. But it can be seen that the curves for birth cohorts in Figure 9 dip at ever younger ages as we look at most recent birth cohorts. For older workers, early retirement may account for the reduction in activity, but for the younger ones, the explanation that comes to mind is that some have become discouraged and withdrawn (temporarily no doubt) from the labour force given the period of stagnation that coincided with the end of the observation period (1991-1992).

Part-time Work (Figure 10)

This has never been a major factor. The younger birth cohorts are characterized by a sharp drop at ages when people normally work full time. For the other birth cohorts at the same ages, the younger ones generally have slightly higher

Table 41. Age-Specific Participation Rates for Certain Male Cohorts, Canada

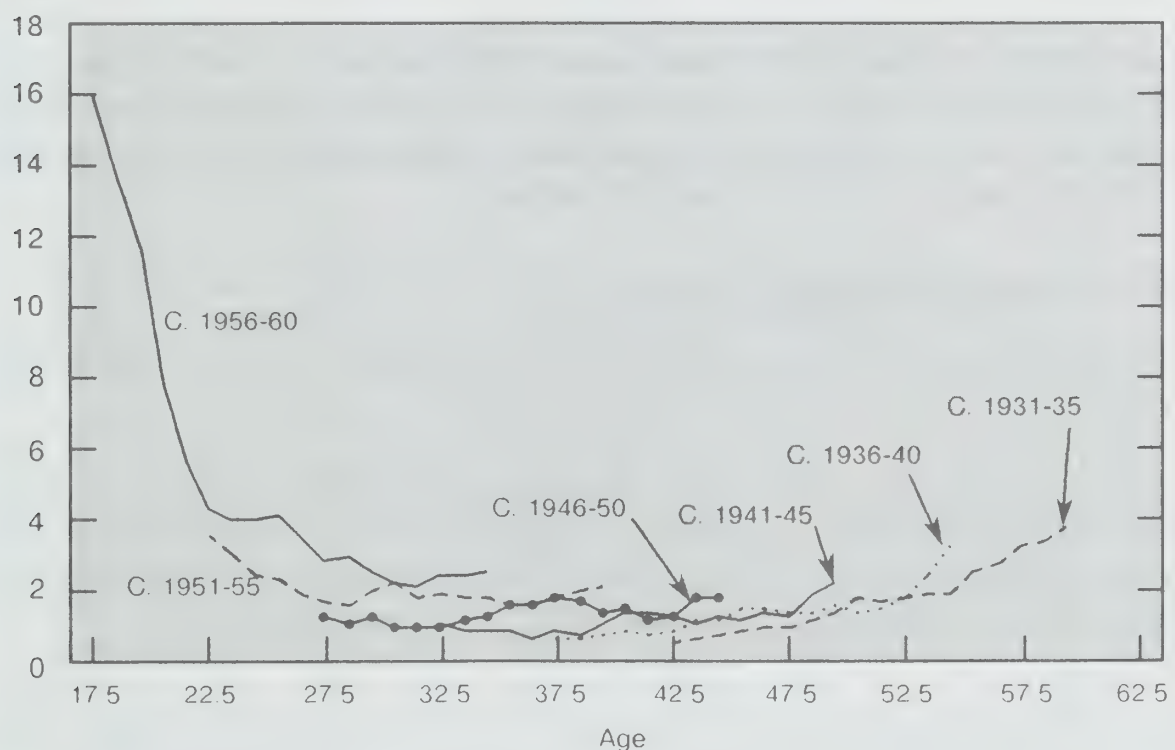
Age	Cohort	Participation Rate
35.0	1941-45	96.4
	1946-50	95.5
	1951-55	94.9
45.0	1931-35	95.0
	1936-40	94.2
	1941-45	94.4
47.5	1931-35	94.1
	1936-40	93.0
	1941-45	92.7

Source: Data from the Labour Force Survey.

Figure 10

Part Time Employment Rates for Males, According to the Average Cohorts, Canada, 1975-1992

Rate (%)

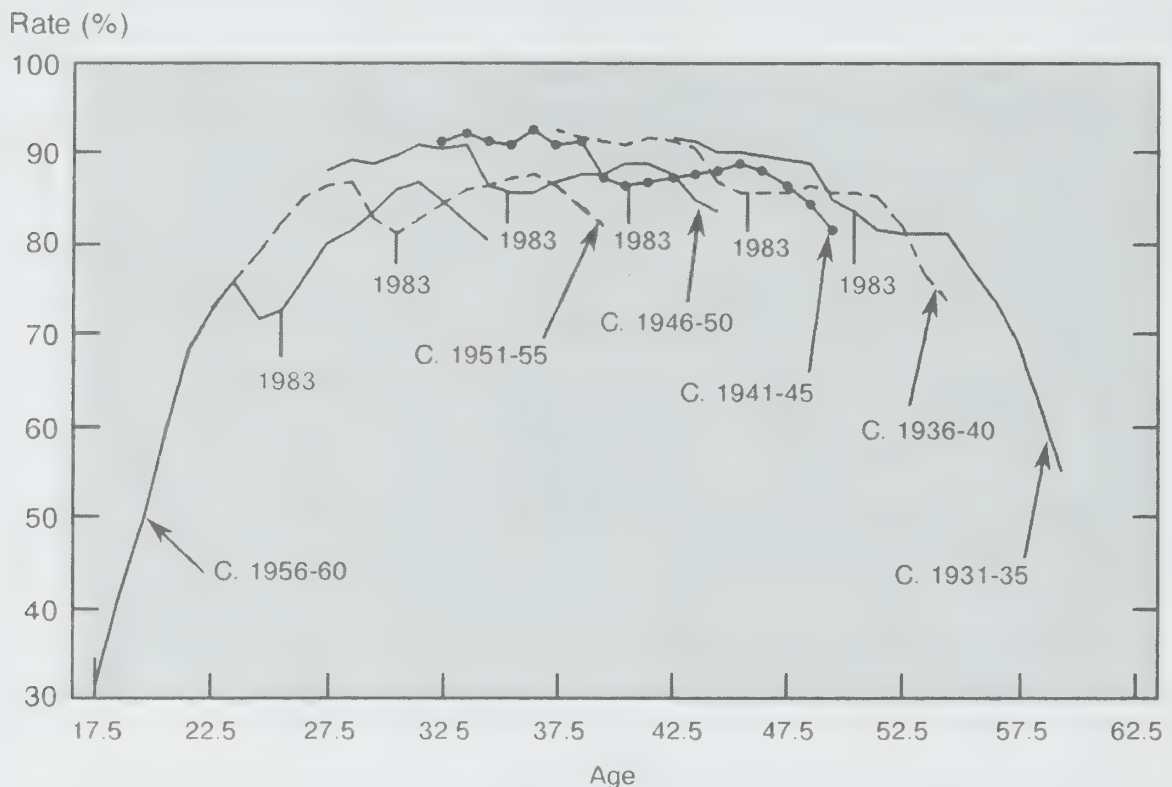


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

Figure 11

Full Time Employment Rates for Males, According to the Average Cohorts, Canada, 1975-1992



Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

rates than those of previous birth cohorts. The 1948 birth cohort at age 42.5 had a rate of 1.16, while for the 1933 cohort it was 0.46. Although these differences were minimal, they could signal changes taking place in demand, notably job-sharing, particularly in the service industry.

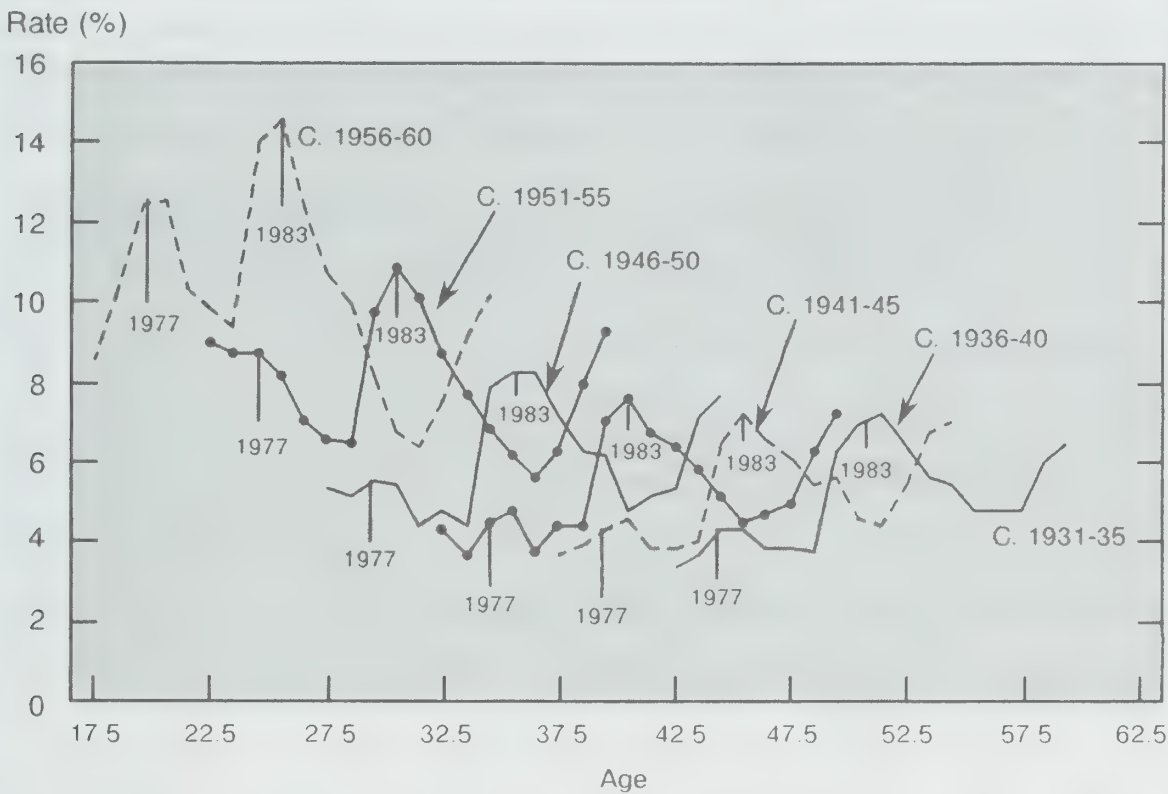
Full-time Work and Unemployment

Since part-time work and absence of activity were low, the impact of unemployment explains fluctuations in full-time work.

While unemployment may result from weaknesses in economic activity in certain years, it may also be endemic for longer or shorter periods with peaks during recessions. Figures 11 and 12 show how old members of various birth cohorts were during the recessions of 1977, 1983¹¹ and 1991-92.

¹¹ Because of the use of cohort averages, there is no exact correspondence between the years during which there was a recession and those when the "average" (of employment or unemployment rates) shows this. The 1982 recession is thus recorded in average behaviours in 1983. *It is likely that with technical progress there will be less and less correspondence between the observation of a recession from production indicators and unemployment.*

Figure 12
Unemployment Rates for Males, According to the Average Cohorts, Canada, 1975-1992



Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

The first observation deals with the universal nature of the last two recessions. To varying extents, all birth cohorts were significantly affected by the recessions of 1983 and the early 1990s. The 1977 recession was less pronounced, to the point where the oldest birth cohorts saw their unemployment increase only marginally.

Table 42. Age of Certain Male Cohort Members During the Recessions of 1983 and 1991 and Corresponding Unemployment Rates

Cohort	1983		1991	
	Age	Unemployment Rate	Age	Unemployment Rate
1956-60	25	14.6	33	9.1
1951-55	30	10.8	38	9.2
1946-50	35	8.2	43	7.1
1941-45	40	7.5	48	6.2
1936-40	45	7.2	53	6.7
1931-35	50	6.9	58	5.9

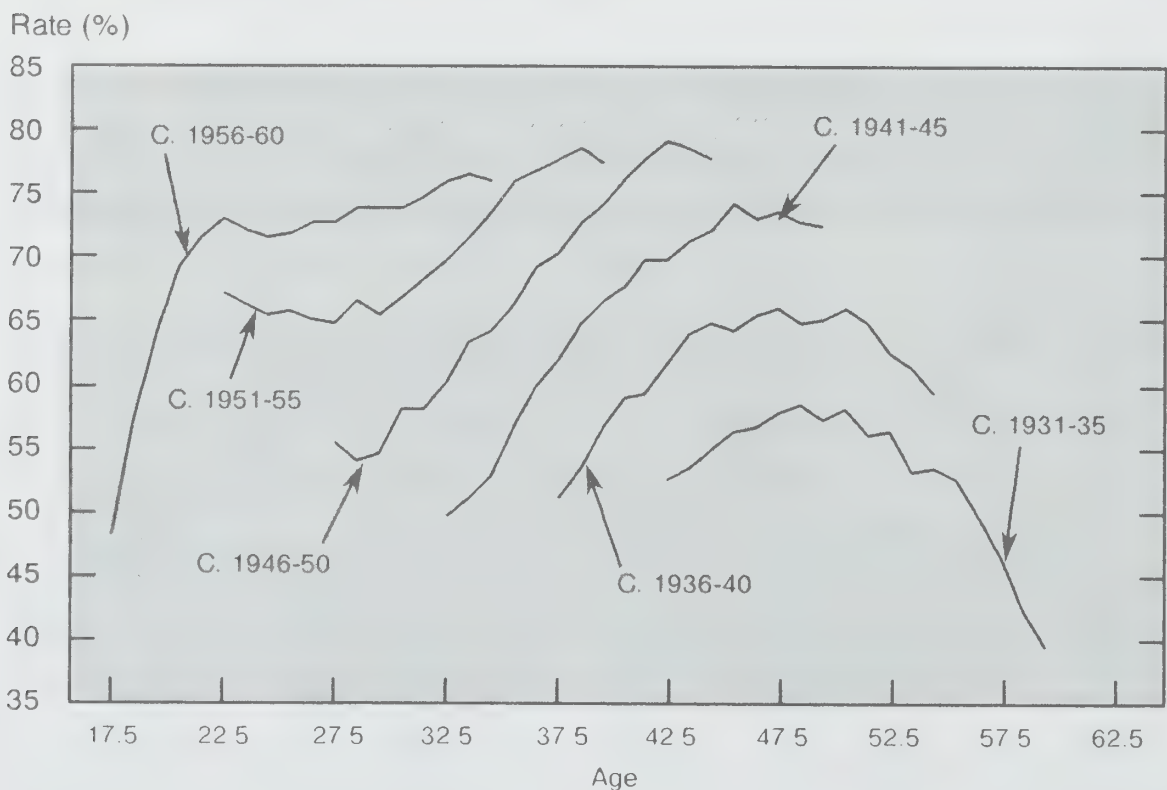
Source: Data from the Labour Force Survey.

The second has to do with intensity. The more recent the birth cohorts, the more they were affected; probably because, since their members were younger, they were more vulnerable due to being less well protected or less experienced in their jobs. Past age 35, whatever the age, unemployment rates differed little; however, the younger cohorts experienced very high peaks in unemployment (Table 42).

The insidious consequences of this situation come less from the peaks in unemployment than from the endemic nature of unemployment. For example, *the 1958 birth cohort lived from age 18 to 35 with an average unemployment rate of nearly 10% (9.63), and those five years older with an average rate of close to 8% (7.95). Concretely, one person out of 10 may have been constantly unemployed between the ages of 18 and 35 and one person out of 12 between 22 and 40*, that is, during the greater part of their adult life, when couples are formed and children born. It is therefore not surprising that marriage and birth rates have remained low and that the average age at child-bearing and marriage has been high during years when men and women were going through these experiences. In comparison, the mean unemployment rate for the 1933 birth cohort was 5.3% between the ages of 43 and 60. Although this rate is not low, it had a lesser demographic effect since, at these ages, family formation and even extension tend to be complete.

Figure 13

Participation Rates for Females, According to the Average Cohorts, Canada, 1975-1992



Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

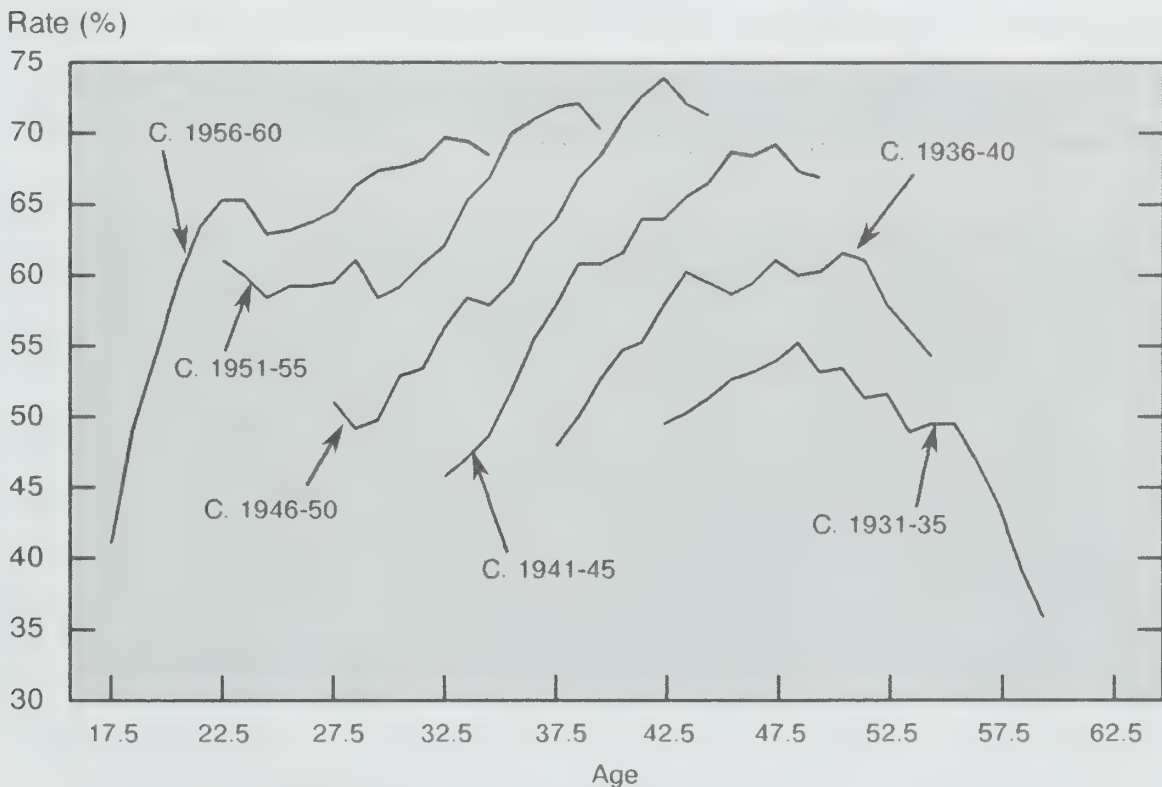
Females

Participation Rates

It is agreed that female participation rates have increased considerably from year to year since 1975, but *the history of cohorts gives a more exact accounting of the large-scale entry of women to the labour force at various ages* (Figure 13).

Perhaps the most impressive feature of Figure 13 is the steepness of curves for most birth cohorts. *The increase in the overall participation rate recorded using cross-sectional analysis from one year to another was due not only to large number of young people coming onto the market, but also older women.* The more recent the birth cohort, the sharper the curve, indicating that from year to year more and more women from these birth cohorts came into the labour force a year older. Thus in *the 1943 birth cohort, almost half of the women were in the job market at age 33, but with successive additions, 72.5% of them were in the labour force 17 years later.* The same is true for the 1948 birth cohort which rose from 55% to 79% in 15 years. The rate for the 1958 birth cohort rose from 47.8% of members to 76% in 16 years, etc.

Figure 14
Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992

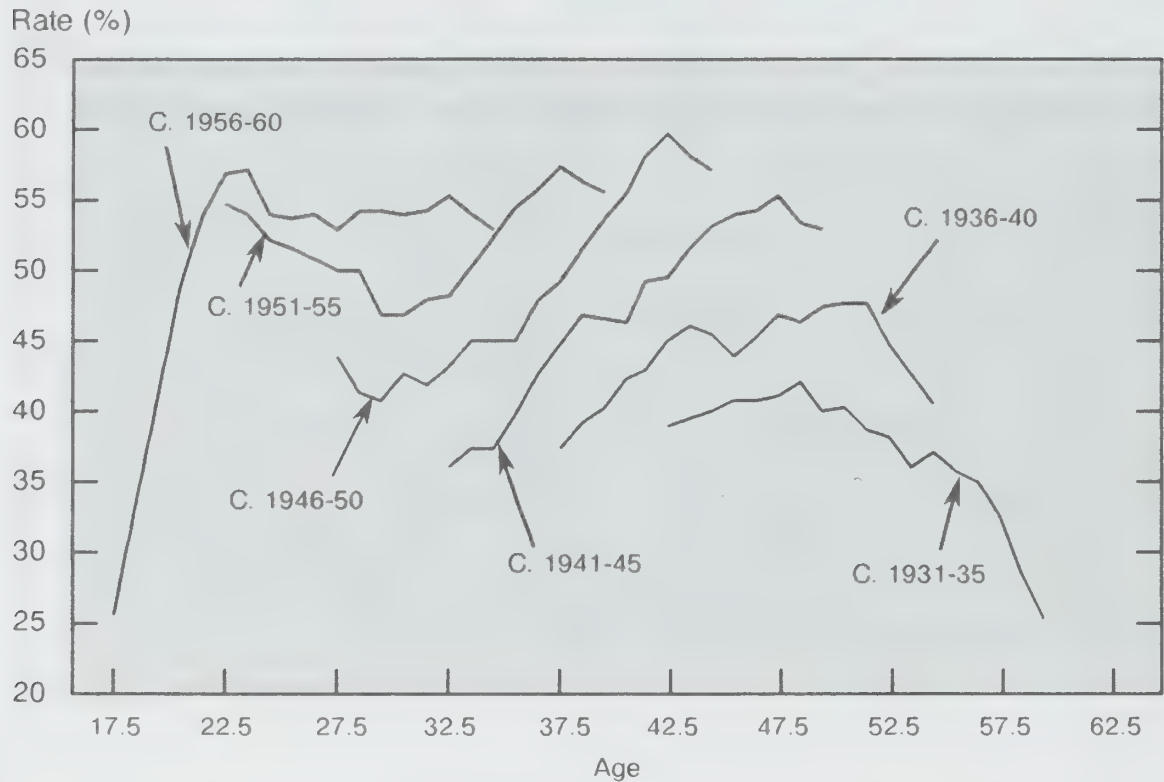


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

Figure 15

Full Time Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992

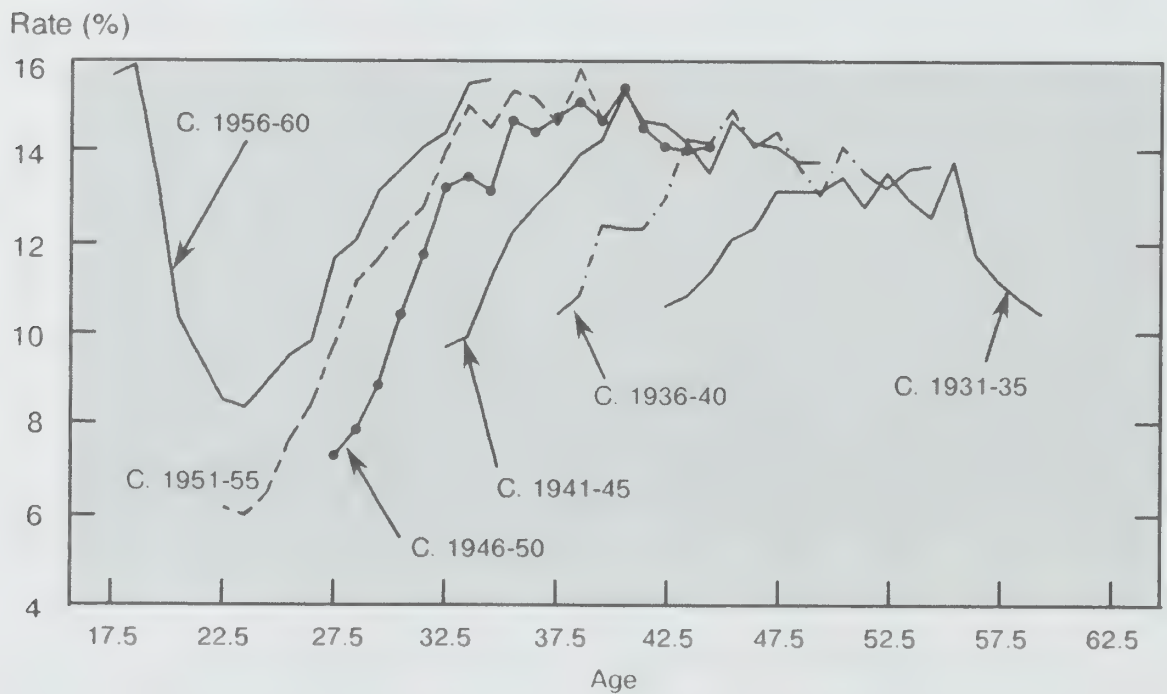


Note: The first point of each line indicates the rate for 1975 and the last the rate for 1992.

Source: Data from the Labour Force Survey.

Figure 16

Part Time Employment Rates for Females, According to the Average Cohorts, Canada, 1975-1992



Source: See Figure 15.

The second observation is that, the older the birth cohorts, the quicker they reached a maximum, and the lower this maximum was. From another viewpoint, we can see a slowdown in cohort participation at younger and younger ages in the more recent birth cohorts. Thus the 1933 birth cohort reached its maximum at age 49 with a rate of 58.4%; the 1938 cohort at 47 with 65.8%; the 1943 at 45 with 74.1% and the 1948 cohort at 43 with 79.2%.

The phenomenon is just as visible when we look at rates of employment (employment population ratio) and full-time employment (Figures 14). It is as if certain members of the various birth cohorts systematically retired after the same duration of working life.

For the 1953 birth cohort, we can also see a clear saddlepoint centred on age 27, which doubtless expresses temporary withdrawal from the labour force to give birth to children; this behaviour is noticeably different from that of the following 1958 birth cohort which, from age 23 to 30, maintained the same employment rate, around 54% (figure 15).

Part-time Work

This form of employment has always been more common than for males, but in the more recent birth cohorts, it has become increasingly widespread. Figure 16 shows an entirely logical phenomenon: the 1953 and 1958 birth cohorts in their 20s who are finding less and less full-time work (see above), also show significant increases from one age to another in part-time jobs.

Each of the older birth cohorts, which worked full-time for shorter periods than subsequent birth cohorts, also had a lower rate of part-time work, indicating that the two forms of employment developed simultaneously.

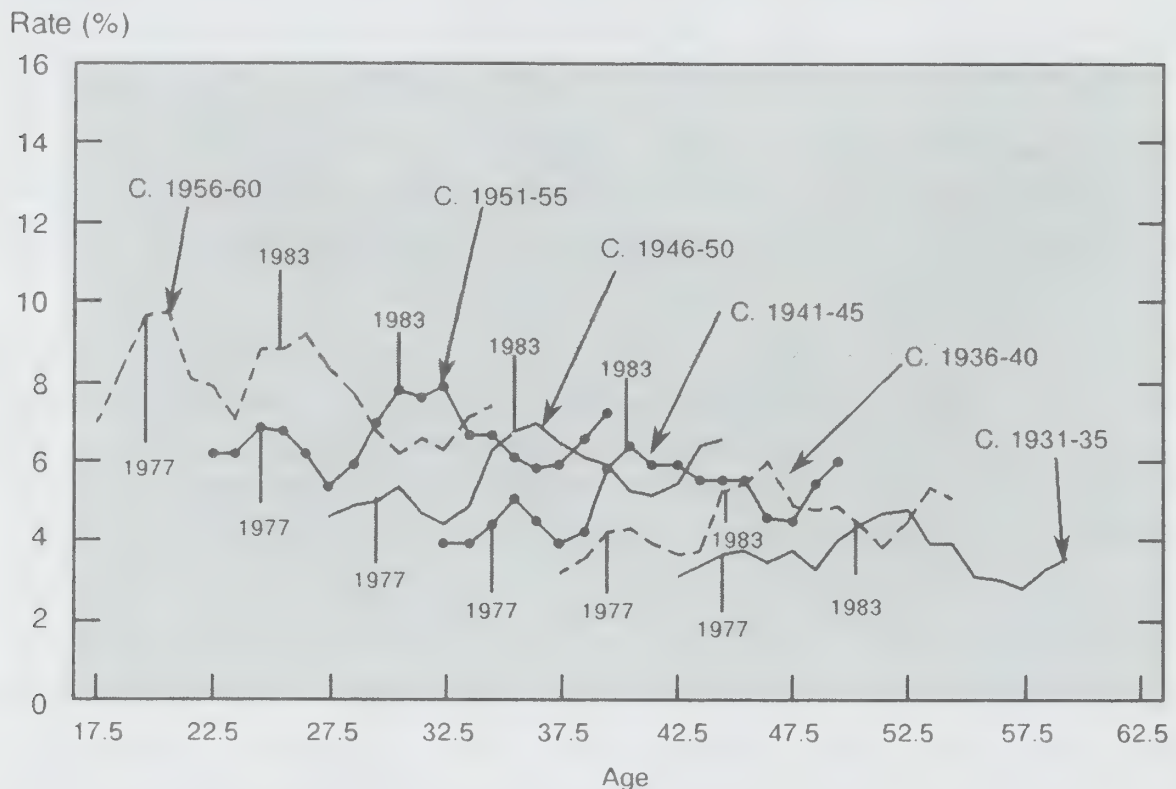
Unemployment

The figure showing female unemployment (Figure 17) is almost identical to that for males, with the difference that the extent of this phenomenon is considerably lower. The comment would only be the same. The birth cohorts most affected are also the most recent, but the figures are lower. The 1958 birth cohort lived with an average rate of 8.2% and that of 1953 with 6.9%. However, no birth cohort has had, either in 1983 or in 1990-91, peaks as high as the corresponding male cohorts. For the 1958 birth cohort, the peak was 9.08% when these women were 27. In 1990-91, the rate was 7.3% and they were 35. For the subsequent average birth cohort (1953), we see a rate of 7.8% at age 33 and 7.2% at age 40.

Overview

Individual observation of one cohort or group of cohorts shows up (for participation, employment or unemployment) a sort of cumulative aspect of these situations for the groups of individuals making up the birth cohort. It is

Figure 17
**Unemployment Rates for Females, According to the
Average Cohorts, Canada, 1975-1992**



Note: The first point of each line indicates the rate for 1975 and the last, the rate for 1992.

Source: Data from the Labour Force Survey.

clear that an *increase in female participation is not due to age and only distantly related to birth cohort, but is a period effect such as the baby-boom – a period when fertility rates were seen to increase at all ages and affected a whole series of birth cohorts*. It is also important to measure the effects that the two major unemployment crises had on certain birth cohorts, particularly those taken at ages when the life potential is at its maximum, bearing in mind that the measurements used are averages and even averages of averages, which considerably tones down the extent of phenomena experienced by some sub-groups. The lost generations?

CONCLUSION

Overall, the main indicators of Canada's demographic health had a rather poor showing in 1991. Marriage, birth and fertility rates were down, abortions were on the rise, divorces remained stationary and deaths were down only slightly. Arrivals of immigrants were in line with forecasts, and internal movements were at a moderate level.

Appendices

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**

Newfoundland

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	537.8	7.4	9.5	0.3	0.3	0.0	11.2	11.4	-0.2	2.5
1973	545.2	4.2	8.5	0.5	0.3	0.1	13.0	15.5	-2.5	2.7
1974	549.4	4.5	6.9	0.5	0.2	0.0	12.4	13.0	-0.6	2.5
1975	553.9	7.3	8.0	0.6	0.2	0.1	12.4	11.4	1.0	2.6
1976	561.2	4.0	7.8	0.3	0.2	0.0	9.7	12.4	-2.7	1.6
1977	565.2	2.7	7.3	0.2	0.2	0.0	8.1	12.2	-4.1	0.9
1978	567.9	2.0	6.4	0.0	0.2	0.0	8.2	11.7	-3.5	1.1
1979	569.9	2.4	7.1	0.2	0.2	0.1	8.9	13.1	-4.2	1.0
1980	572.3	3.5	6.9	0.3	0.2	0.1	9.3	12.4	-3.1	0.9
1981	575.8	-0.6	6.9	0.1	0.2	0.1	8.5	14.8	-6.3	1.6
1982	575.2	4.2	5.8	-0.1	0.2	0.1	10.6	10.3	0.3	2.1
1983	579.4	2.0	5.4	-0.2	0.2	-0.2	7.6	8.7	-1.1	2.1
1984	581.4	-0.5	5.1	-0.1	0.2	0.1	5.7	9.3	-3.6	2.2
1985	580.9	-2.1	4.9	-0.1	0.2	0.0	6.0	11.0	-5.0	2.1
1986	578.8	-1.7	4.6	-0.2	0.2	0.2	7.7	12.4	-4.7	1.8
1987	577.1	-1.2	4.2	0.1	0.2	0.3	8.4	12.8	-4.4	1.6
1988	575.9	0.9	3.9	0.2	0.2	0.3	10.0	12.2	-2.2	1.5
1989	576.8	0.7	4.1	0.3	0.1	0.4	10.0	12.7	-2.7	1.5
1990	577.5	1.4	3.7	0.4	0.1	-0.1	10.3	11.4	-1.1	1.6
1991	578.9	1.0	3.4	0.3	0.0 ³	-0.4	10.5	12.0	-1.5	0.8
1992 PR	579.9	-0.1	3.6	0.5	-	-0.6	8.9	12.6	-3.7	-
1993 PR	579.8	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
1972	537.8	13.7	23.8	6.3	17.5	0.6				-3.9
1973	545.2	7.7	21.7	6.2	15.5	0.9				-7.9
1974	549.4	8.2	18.5	6.0	12.5	0.9				-4.4
1975	553.9	13.1	20.1	5.7	14.3	1.1				-1.3
1976	561.2	7.1	19.7	5.9	13.8	0.5				-6.7
1977	565.2	4.8	18.4	5.5	12.9	0.4				-8.1
1978	567.9	3.5	16.7	5.4	11.2	0.0				-7.7
1979	569.9	4.2	17.9	5.4	12.4	0.4				-8.2
1980	572.3	6.1	17.9	5.9	12.0	0.5				-5.9
1981	575.8	-1.0	17.5	5.6	12.0	0.2				-13.0
1982	575.2	7.3	15.9	5.9	10.0	-0.2				-2.8
1983	579.4	3.4	15.3	6.0	9.3	-0.3				-5.9
1984	581.4	-0.9	14.8	6.0	8.8	-0.2				-9.6
1985	580.9	-3.6	14.7	6.2	8.5	-0.2				-12.1
1986	578.8	-2.9	14.0	6.1	8.0	-0.3				-10.9
1987	577.1	-2.1	13.5	6.2	7.3	0.2				-9.4
1988	575.9	1.6	13.0	6.2	6.8	0.3				-5.2
1989	576.8	1.2	13.5	6.4	7.1	0.5				-5.9
1990	577.5	2.4	13.1	6.7	6.4	0.7				-4.0
1991	578.9	1.7	12.4	6.6	5.9	0.5				-4.1 ⁵
1992 PR	579.9	-0.2	12.9	6.7	6.2	0.9				-6.4
1993 PR	579.8	-	-	-	-	-				-

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**
Prince Edward Island

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	113.2	1.3	1.0	0.1	0.1	0.0	4.2	3.4	0.9	0.7
1973	114.5	0.9	0.9	0.1	0.1	0.0	4.8	4.3	0.5	0.7
1974	115.4	1.8	0.9	0.2	0.1	0.0	5.2	3.8	1.4	0.7
1975	117.2	1.2	0.9	0.1	0.1	0.0	4.6	3.8	0.8	0.7
1976	118.4	1.1	0.8	0.1	0.1	-0.0	4.3	4.0	0.3	0.2
1977	119.5	1.8	0.9	0.1	0.1	0.0	3.9	3.3	0.6	-0.1
1978	121.3	1.2	1.0	0.0	0.1	0.0	3.5	3.5	0.0	-0.1
1979	122.5	1.0	0.9	0.2	0.1	0.0	3.4	3.6	-0.2	-0.1
1980	123.5	0.1	0.9	0.1	0.0	0.0	3.0	4.1	-1.1	-0.1
1981	123.6	0.2	0.9	0.0	0.1	0.0	3.5	4.3	-0.8	0.0
1982	123.8	1.0	0.9	0.1	0.1	-0.0	3.4	3.4	-0.0	0.1
1983	124.8	1.6	0.9	-0.0	0.0	0.0	3.3	2.5	0.8	0.1
1984	126.4	1.3	0.8	0.0	0.0	-0.0	3.1	2.5	0.5	0.1
1985	127.8	0.9	0.9	0.0	0.0	0.0	2.8	2.8	-0.0	0.1
1986	128.7	0.2	0.8	0.1	0.0	0.1	2.5	3.0	-0.5	0.4
1987	128.8	0.7	0.8	0.1	0.0	0.0	3.1	2.8	0.3	0.6
1988	129.6	0.9	0.9	0.1	0.0	0.0	3.5	3.1	0.4	0.6
1989	130.5	0.3	0.8	0.1	0.0	0.0	3.3	3.4	-0.1	0.6
1990	130.8	0.2	0.9	0.1	0.0	-0.0	2.8	3.1	-0.3	0.6
1991	131.0	-1.1	0.7	0.0	0.0 ³	-0.0	3.1	4.7	-1.6	0.2
1992 PR	129.9	1.2	0.7	0.0	-	-0.0	3.0	2.5	0.5	-
1993 PR	131.1	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
1972	113.2	11.3	17.7	9.2	8.4	0.6			2.9	
1973	114.5	7.7	16.4	8.9	7.5	1.3			0.2	
1974	115.4	15.6	16.7	9.4	7.3	1.6			8.3	
1975	117.2	10.2	16.4	9.0	7.4	1.1			2.8	
1976	118.4	9.3	16.3	9.2	7.1	1.1			2.2	
1977	119.5	14.6	16.4	8.7	7.7	0.8			7.0	
1978	121.3	9.8	16.3	8.2	8.1	0.4			1.7	
1979	122.5	8.3	15.7	8.3	7.4	1.7			0.9	
1980	123.5	0.7	15.8	8.4	7.5	1.0			-6.7	
1981	123.6	2.0	15.3	8.0	7.3	0.3			-5.3	
1982	123.8	7.7	15.5	7.9	7.6	0.6			0.2	
1983	124.8	13.1	15.2	8.4	6.8	-0.0			6.2	
1984	126.4	10.6	15.4	8.7	6.6	0.1			3.9	
1985	127.8	6.9	15.7	8.7	7.0	0.2			-0.1	
1986	128.7	1.2	15.0	8.7	6.3	0.7			-5.0	
1987	128.8	5.8	15.1	8.6	6.5	0.9			-0.7	
1988	129.6	6.8	15.2	8.6	6.7	0.7			0.2	
1989	130.5	2.6	14.8	8.3	6.5	0.7			-3.9	
1990	130.8	1.4	15.4	8.7	6.7	1.1			-5.2	
1991	131.0	-8.3	14.5	9.1	5.3	0.4			-13.6 ⁵	
1992 PR	129.9	9.2	14.5	9.3	5.1	0.4			4.0	
1993 PR	131.1	-	-	-	-	-			-	

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**

Nova Scotia

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	802.4	8.0	6.6	1.3	0.4	0.0	22.7	19.9	2.8	3.2
1973	810.4	7.6	6.4	1.8	0.4	0.1	26.3	24.1	2.1	3.2
1974	818.1	6.6	6.0	1.9	0.3	-0.1	27.2	25.6	1.6	3.2
1975	824.7	9.6	6.3	1.5	0.3	0.1	25.6	21.1	4.5	3.2
1976	834.2	5.8	5.9	1.4	0.3	-0.1	23.0	22.6	0.4	2.1
1977	840.0	4.1	5.4	1.0	0.3	-0.1	19.9	21.2	-1.3	1.3
1978	844.2	4.9	5.7	0.4	0.3	-0.1	19.5	19.6	-0.1	1.3
1979	849.1	3.7	5.6	0.8	0.3	0.1	18.4	20.3	-1.8	1.3
1980	852.8	3.3	5.4	1.2	0.3	0.2	18.5	21.0	-2.5	1.3
1981	856.1	3.5	5.1	0.9	0.3	0.6	19.3	21.7	-2.5	0.9
1982	859.6	7.5	5.4	0.8	0.2	0.2	18.8	17.3	1.6	0.6
1983	867.1	9.4	5.4	0.3	0.2	0.2	18.3	14.5	3.9	0.6
1984	876.5	8.7	5.5	0.6	0.2	0.0	17.3	14.4	3.0	0.6
1985	885.2	4.8	5.1	0.5	0.2	-0.2	16.7	16.9	-0.2	0.6
1986	890.0	4.4	5.1	0.6	0.2	0.0	17.1	17.8	-0.7	0.8
1987	894.4	3.1	5.0	0.7	0.3	0.3	17.6	19.8	-2.2	1.0
1988	897.5	5.8	4.8	0.9	0.2	0.8	19.2	19.1	0.1	1.0
1989	903.2	6.5	5.0	1.0	0.2	0.7	20.4	19.8	0.6	1.0
1990	909.8	5.4	5.5	0.9	0.2	-0.2	18.6	18.7	-0.1	1.0
1991	915.2	4.6	4.8	0.5	0.1 ³	-1.7	21.4	20.1	1.4	0.4
1992 PR	919.8	1.7	4.5	1.3	-	-2.0	19.1	21.3	-2.1	-
1993 PR	921.5	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
1972	802.4	9.9	16.8	8.6	8.2	1.6	1.7			
1973	810.4	9.4	16.3	8.5	7.8	2.2	1.5			
1974	818.1	8.1	15.8	8.4	7.4	2.3	0.7			
1975	824.7	11.5	15.8	8.2	7.6	1.8	3.9			
1976	834.2	6.9	15.3	8.3	7.0	1.6	-0.1			
1977	840.0	4.9	14.7	8.3	6.4	1.2	-1.5			
1978	844.2	5.8	14.8	8.1	6.7	0.5	-0.9			
1979	849.1	4.4	14.6	8.0	6.5	1.0	-2.2			
1980	852.8	3.9	14.5	8.2	6.3	1.4	-2.4			
1981	856.1	4.1	14.1	8.1	6.0	1.0	-1.9			
1982	859.6	8.7	14.3	8.0	6.2	0.9	2.5			
1983	867.1	10.8	14.2	8.1	6.1	0.4	4.6			
1984	876.5	9.8	14.1	7.8	6.2	0.7	3.6			
1985	885.2	5.4	14.0	8.2	5.8	0.5	-0.4			
1986	890.0	4.9	13.9	8.1	5.7	0.7	-0.8			
1987	894.4	3.5	13.5	7.9	5.6	0.8	-2.1			
1988	897.5	6.4	13.5	8.2	5.3	1.0	1.1			
1989	903.2	7.2	13.8	8.3	5.5	1.1	1.7			
1990	909.8	5.9	14.1	8.1	6.0	1.0	-0.1			
1991	915.2	5.1	13.1	7.9	5.2	0.6	-0.1 ⁵			
1992 PR	919.8	1.9	13.0	8.1	4.9	1.5	-3.0			
1993 PR	921.5	-	-	-	-	-	-			

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**

New Brunswick

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	648.3	6.2	6.8	0.2	0.6	0.0	18.2	17.9	0.2	1.8
1973	654.4	8.5	6.3	0.4	0.7	0.1	22.7	19.9	2.8	1.8
1974	663.0	10.1	6.2	0.9	0.6	-0.0	22.9	18.7	4.2	1.8
1975	673.1	14.0	6.6	0.9	0.6	0.1	24.2	16.6	7.6	1.8
1976	687.2	8.1	6.6	0.7	0.6	-0.0	18.9	17.3	1.6	1.4
1977	695.3	5.0	6.3	0.1	0.5	-0.0	15.5	16.4	-0.9	1.1
1978	700.4	3.0	5.6	-0.4	0.5	-0.0	14.3	16.0	-1.6	1.1
1979	703.4	3.2	5.7	0.2	0.5	0.1	14.3	16.5	-2.2	1.1
1980	706.6	1.2	5.3	0.5	0.5	0.2	13.2	17.4	-4.2	1.1
1981	707.9	0.1	5.4	-0.1	0.5	0.4	13.8	18.6	-4.8	1.3
1982	708.0	6.0	5.3	-0.3	0.4	-0.2	14.8	12.7	2.2	1.4
1983	714.0	6.3	5.3	-0.2	0.4	-0.0	13.2	10.9	2.3	1.4
1984	720.3	4.6	5.1	-0.3	0.4	-0.1	12.0	11.2	0.8	1.4
1985	724.9	2.0	4.9	-0.4	0.5	-0.0	11.5	13.1	-1.6	1.4
1986	726.9	1.3	4.3	-0.3	0.4	0.1	11.4	14.3	-2.9	0.4
1987	728.1	3.0	4.2	-0.2	0.4	0.1	13.2	15.0	-1.8	-0.3
1988	731.2	4.1	4.2	-0.2	0.4	0.6	13.7	14.9	-1.2	-0.3
1989	735.2	4.9	4.2	0.0	0.4	0.1	15.0	15.0	-0.0	-0.3
1990	740.1	5.9	4.4	-0.0	0.4	-0.1	14.2	13.2	1.0	-0.3
1991	746.1	1.7	4.0	-0.2	0.1 ³	-0.5	14.1	15.9	-1.8	-0.1
1992 PR	747.8	1.2	4.0	-0.1	-	-0.8	14.0	15.9	-1.9	-
1993 PR	749.0	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
	648.3	9.5	18.1	7.6	10.5	0.4	-1.0			
	654.4	13.0	17.3	7.7	9.6	0.6	3.3			
	663.0	15.2	17.1	7.8	9.3	1.3	5.8			
	673.1	20.7	17.3	7.6	9.8	1.3	10.9			
	687.2	11.8	17.1	7.5	9.6	1.0	2.2			
	695.3	7.2	16.5	7.4	9.1	0.2	-1.8			
	700.4	4.3	15.4	7.4	8.0	-0.6	-3.7			
	703.4	4.6	15.4	7.3	8.1	0.3	-3.4			
	706.6	1.8	15.0	7.5	7.5	0.7	-5.8			
	707.9	0.2	14.8	7.3	7.6	-0.1	-7.4			
	708.0	8.4	14.8	7.3	7.4	-0.4	1.0			
	714.0	8.8	14.7	7.3	7.4	-0.3	1.4			
	720.3	6.3	14.3	7.3	7.0	-0.4	-0.7			
	724.9	2.8	13.9	7.2	6.7	-0.5	-4.0			
	726.9	1.8	13.5	7.5	6.0	-0.4	-4.2			
	728.1	4.2	13.1	7.4	5.7	-0.3	-1.6			
	731.2	5.5	13.1	7.4	5.7	-0.2	-0.2			
	735.2	6.6	13.1	7.5	5.7	0.0	1.0			
	740.1	8.0	13.2	7.3	5.9	-0.1	2.1			
	746.1	2.3	12.7	7.3	5.4	-0.2	-3.1 ⁵			
	747.8	1.6	12.8	7.5	5.3	-0.2	-3.7			
	749.0	-	-	-	-	-	-			

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**

Quebec

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	6,172.2	38.6	41.3	7.6	6.6	0.7	36.2	56.0	-19.9	-2.3
1973	6,210.8	50.7	41.4	13.4	6.7	1.7	39.6	54.4	-14.7	-2.3
1974	6,261.4	59.5	42.9	20.1	6.3	-0.3	39.3	51.2	-11.9	-2.3
1975	6,320.9	64.2	50.2	16.1	6.3	1.7	34.5	46.8	-12.3	-2.3
1976	6,385.1	52.2	53.3	18.4	6.2	-0.5	31.6	52.4	-20.8	4.5
1977	6,437.3	12.0	53.7	9.0	5.5	-0.3	24.4	71.0	-46.5	9.4
1978	6,449.3	17.6	51.8	3.8	5.4	-0.5	24.5	57.9	-33.4	9.4
1979	6,466.9	33.3	55.3	10.5	5.1	1.8	23.6	53.7	-30.0	9.4
1980	6,500.2	43.3	53.9	15.1	4.7	3.3	21.9	46.2	-24.3	9.4
1981	6,543.5	42.6	52.6	13.4	4.2	4.8	23.6	46.1	-22.5	9.8
1982	6,586.1	22.9	47.3	11.8	4.8	-2.8	19.9	48.1	-28.2	10.1
1983	6,609.0	27.6	43.9	7.0	4.3	1.6	22.3	41.4	-19.1	10.1
1984	6,636.6	33.0	43.4	5.8	4.3	0.6	25.2	36.2	-10.9	10.1
1985	6,669.6	40.5	40.6	7.2	4.1	4.6	25.4	31.4	-6.0	10.1
1986	6,710.1	60.0	37.7	12.4	4.0	13.9	26.0	29.0	-3.0	5.0
1987	6,770.1	59.0	36.2	21.1	3.5	7.1	26.0	33.4	-7.4	1.4
1988	6,829.1	77.0	38.8	20.7	3.0	22.9	27.8	34.8	-7.0	1.4
1989	6,906.0	73.0	44.1	28.7	2.9	7.2	29.5	37.8	-8.4	1.4
1990	6,979.0	69.4	49.6	35.5	2.6	-7.4	26.9	36.4	-9.6	1.4
1991	7,048.4	68.3	48.2	45.1	1.0 ³	-13.7	26.9	38.6	-11.7	0.6
1992 PR	7,116.7	65.5	46.9	41.4	-	-7.3	27.8	43.3	-15.5	-
1993 PR	7,182.2	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
1972	6,172.2	6.2	13.5	6.8	6.7	1.2	-0.4			
1973	6,210.8	8.1	13.5	6.8	6.6	2.1	1.5			
1974	6,261.4	9.5	13.6	6.8	6.8	3.2	2.6			
1975	6,320.9	10.1	14.7	6.8	7.9	2.5	2.2			
1976	6,385.1	8.1	15.0	6.7	8.3	2.9	-0.2			
1977	6,437.3	1.9	15.1	6.7	8.3	1.4	-6.5			
1978	6,449.3	2.7	14.8	6.7	8.0	0.6	-5.3			
1979	6,466.9	5.1	15.2	6.7	8.5	1.6	-3.4			
1980	6,500.2	6.6	14.9	6.7	8.3	2.3	-1.6			
1981	6,543.5	6.5	14.5	6.5	8.0	2.0	-1.5			
1982	6,586.1	3.5	13.8	6.6	7.2	1.8	-3.7			
1983	6,609.0	4.2	13.3	6.7	6.6	1.1	-2.5			
1984	6,636.6	5.0	13.2	6.7	6.5	0.9	-1.6			
1985	6,669.6	6.0	12.9	6.8	6.1	1.1	-0.0			
1986	6,710.1	8.9	12.6	7.0	5.6	1.8	3.3			
1987	6,770.1	8.7	12.3	7.0	5.3	3.1	3.4			
1988	6,829.1	11.2	12.6	7.0	5.7	3.0	5.6			
1989	6,906.0	10.5	13.3	7.0	6.3	4.1	4.2			
1990	6,979.0	9.9	14.0	6.9	7.1	5.1	2.8			
1991	7,048.4	9.6	13.7	6.9	6.8	6.4	2.8 ⁵			
1992 PR	7,116.7	9.2	13.6	7.1	6.6	5.8	2.6			
1993 PR	7,182.2	-	-	-	-	-	-			

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**

Ontario

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	7,925.7	106.8	66.2	33.5	17.7	1.5	97.0	88.8	8.2	20.2
1973	8,032.5	126.1	63.9	65.5	18.1	4.1	104.2	109.4	- 5.3	20.2
1974	8,158.7	120.1	63.7	82.6	17.3	- 1.2	89.5	111.7	- 22.2	20.2
1975	8,278.7	106.1	65.2	64.6	17.5	4.1	80.9	106.0	- 25.1	20.2
1976	8,384.8	92.2	62.1	41.3	17.3	- 1.7	88.7	99.2	- 10.5	16.2
1977	8,477.0	98.2	61.3	27.3	15.4	- 1.2	98.6	90.0	8.6	13.4
1978	8,575.2	72.6	59.8	12.3	15.2	- 1.7	86.6	86.2	0.4	13.4
1979	8,647.8	76.0	60.2	26.1	14.4	4.0	83.5	98.9	- 15.3	13.4
1980	8,723.9	74.0	60.6	41.1	13.0	7.6	74.2	109.1	- 34.9	13.4
1981	8,797.9	96.3	59.3	32.2	11.9	17.5	80.6	100.2	- 19.7	5.0
1982	8,894.1	120.4	61.2	25.4	13.4	- 0.1	89.1	69.5	19.6	- 1.0
1983	9,014.5	123.6	62.3	13.5	12.3	1.7	88.2	55.4	32.8	- 1.0
1984	9,138.1	131.3	66.6	16.7	11.9	- 1.6	89.1	52.4	36.7	- 1.0
1985	9,269.4	132.2	65.5	16.6	12.4	3.4	88.4	54.9	33.4	- 1.0
1986	9,401.7	174.1	66.0	27.9	11.4	24.7	100.1	57.1	42.9	- 1.1
1987	9,575.8	206.4	66.5	65.4	10.8	22.2	104.7	64.4	40.3	- 1.2
1988	9,782.2	235.2	67.4	72.2	9.5	70.0	91.4	76.5	14.9	- 1.2
1989	10,017.4	218.6	74.4	87.3	9.3	47.6	87.3	88.5	- 1.2	- 1.2
1990	10,236.0	165.4	80.1	96.8	8.4	- 6.0	75.2	90.3	- 15.1	- 1.2
1991	10,401.4	135.8	78.6	98.0	3.2 ³	- 38.9	78.8	84.4	- 5.6	- 0.5
1992 PR	10,537.1	136.7	79.2	115.4	-	- 55.0	82.8	85.7	- 3.0	-
1993 PR	10,673.8	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
1972	7,925.7	13.4	15.7	7.4	8.3	4.2	5.1			
1973	8,032.5	15.6	15.3	7.4	7.9	8.1	7.7			
1974	8,158.7	14.6	15.1	7.4	7.7	10.1	6.9			
1975	8,278.7	12.7	15.1	7.3	7.8	7.8	4.9			
1976	8,384.8	10.9	14.6	7.2	7.4	4.9	3.6			
1977	8,477.0	11.5	14.4	7.2	7.2	3.2	4.3			
1978	8,575.2	8.4	14.0	7.1	6.9	1.4	1.5			
1979	8,647.8	8.8	14.0	7.1	6.9	3.0	1.8			
1980	8,723.9	8.4	14.1	7.2	6.9	4.7	1.5			
1981	8,797.9	10.9	13.8	7.1	6.7	3.6	4.2			
1982	8,894.1	13.4	13.9	7.1	6.8	2.8	6.6			
1983	9,014.5	13.6	14.0	7.1	6.9	1.5	6.7			
1984	9,138.1	14.3	14.3	7.0	7.2	1.8	7.0			
1985	9,269.4	14.2	14.2	7.1	7.0	1.8	7.2			
1986	9,401.7	18.4	14.1	7.2	7.0	2.9	11.4			
1987	9,575.8	21.3	13.9	7.0	6.9	6.8	14.5			
1988	9,782.2	23.8	13.9	7.1	6.8	7.3	16.9			
1989	10,017.4	21.6	14.4	7.0	7.3	8.6	14.2			
1990	10,236.0	16.0	14.6	6.9	7.8	9.4	8.3			
1991	10,401.4	13.0	14.5	7.0	7.5	9.4	5.5 ⁵			
1992 PR	10,537.1	12.9	14.4	6.9	7.5	10.9	5.4			
1993 PR	10,673.8	-	-	-	-	-	-			

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)
Manitoba**

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	1,000.9	3.7	9.2	2.9	1.4	0.1	26.1	33.8	-7.7	2.1
1973	1,004.5	9.8	8.8	3.7	1.4	0.2	33.8	36.0	-2.2	2.1
1974	1,014.3	7.2	8.9	4.5	1.4	-0.1	30.2	35.6	-5.4	2.1
1975	1,021.5	8.6	8.8	4.5	1.4	0.2	28.4	32.5	-4.1	2.1
1976	1,030.1	6.4	8.5	3.2	1.3	-0.1	25.1	28.7	-3.7	2.9
1977	1,036.5	5.3	8.5	2.8	1.2	-0.1	21.6	25.3	-3.8	3.4
1978	1,041.8	-2.5	8.1	1.3	1.2	-0.1	18.7	28.2	-9.6	3.4
1979	1,039.3	-4.9	8.0	3.0	1.1	0.2	18.8	32.6	-13.8	3.4
1980	1,034.5	0.3	7.6	6.1	1.0	0.4	19.0	30.4	-11.3	3.4
1981	1,034.8	7.8	7.4	3.4	1.0	0.7	22.7	26.3	-3.6	1.2
1982	1,042.6	13.7	7.6	3.2	0.8	0.2	20.9	19.4	1.5	-0.4
1983	1,056.2	12.7	8.1	1.8	1.0	0.4	18.5	17.5	1.0	-0.4
1984	1,069.0	11.7	8.4	2.3	0.8	-0.2	17.2	17.2	-0.0	-0.4
1985	1,080.7	9.4	8.3	1.6	0.9	-0.1	17.2	19.0	-1.8	-0.4
1986	1,090.1	7.0	8.1	1.9	0.9	0.2	17.4	20.5	-3.0	1.0
1987	1,097.0	5.3	8.2	2.8	0.9	0.1	18.1	22.9	-4.8	2.0
1988	1,102.3	1.8	7.9	3.0	0.8	0.7	16.1	24.7	-8.6	2.0
1989	1,104.1	1.4	8.5	3.7	1.0	0.2	17.1	27.1	-10.0	2.0
1990	1,105.6	3.5	8.5	4.6	0.9	0.2	16.9	25.5	-8.6	2.0
1991	1,109.1	2.0	8.3	3.5	0.4 ³	-1.5	18.0	25.9	-7.9	0.8
1992 PR	1,111.1	2.4	8.2	2.8	-	-2.1	18.6	25.1	-6.5	-
1993 PR	1,113.5	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
1972	1,000.9	3.7	17.4	8.2	9.1	2.9	-5.5			
1973	1,004.5	9.7	16.8	8.1	8.7	3.7	1.0			
1974	1,014.3	7.0	17.0	8.3	8.7	4.5	-1.7			
1975	1,021.5	8.4	16.7	8.2	8.5	4.4	-0.1			
1976	1,030.1	6.1	16.2	8.0	8.2	3.1	-2.0			
1977	1,036.5	5.1	16.1	7.9	8.2	2.7	-3.1			
1978	1,041.8	-2.4	15.8	8.0	7.8	1.3	-10.2			
1979	1,039.3	-4.7	15.7	7.9	7.7	2.9	-12.4			
1980	1,034.5	0.3	15.5	8.2	7.3	5.9	-7.0			
1981	1,034.8	7.5	15.5	8.3	7.1	3.3	0.3			
1982	1,042.6	13.0	15.4	8.1	7.3	3.1	5.8			
1983	1,056.2	12.0	15.6	8.0	7.6	1.7	4.4			
1984	1,069.0	10.9	15.5	7.7	7.8	2.2	3.1			
1985	1,080.7	8.7	15.8	8.1	7.7	1.5	1.0			
1986	1,090.1	6.4	15.6	8.1	7.4	1.7	-1.0			
1987	1,097.0	4.8	15.4	7.9	7.5	2.5	-2.7			
1988	1,102.3	1.7	15.4	8.2	7.2	2.7	-5.5			
1989	1,104.1	1.3	15.7	8.0	7.7	3.4	-6.4			
1990	1,105.6	3.2	15.7	8.0	7.7	4.1	-4.5			
1991	1,109.1	1.8	15.6	8.1	7.5	3.1	-5.7 ⁵			
1992 PR	1,111.1	2.1	15.7	8.3	7.4	2.5	-5.3			
1993 PR	1,113.5	-	-	-	-	-	-			

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**
Saskatchewan

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	925.5	−9.6	7.9	0.3	0.8	0.0	19.5	36.8	−17.3	1.3
1973	915.9	−6.1	7.2	0.4	0.7	0.1	26.2	39.4	−13.3	1.3
1974	909.8	2.7	7.3	0.8	0.7	−0.0	28.0	32.8	−4.8	1.3
1975	912.5	15.3	7.6	1.6	0.7	0.1	30.0	23.4	6.6	1.3
1976	927.8	13.0	8.2	1.2	0.7	−0.0	26.2	22.4	3.8	0.8
1977	940.7	10.6	9.0	1.1	0.6	−0.0	22.2	21.8	0.4	0.4
1978	951.3	5.6	8.8	0.4	0.6	−0.0	19.3	23.0	−3.7	0.4
1979	956.9	8.1	9.6	1.8	0.5	0.1	21.1	24.6	−3.5	0.4
1980	965.0	8.1	9.4	2.8	0.5	0.2	20.7	25.0	−4.4	0.4
1981	973.1	11.3	9.7	1.4	0.5	0.3	23.2	23.7	−0.5	0.1
1982	984.4	12.9	9.5	1.0	0.5	−0.0	21.0	19.3	1.7	−0.1
1983	997.3	14.0	10.2	0.5	0.5	0.1	19.5	17.0	2.5	−0.1
1984	1,011.3	12.9	10.3	1.1	0.5	0.2	17.3	16.6	0.7	−0.1
1985	1,024.2	6.6	10.1	0.5	0.6	0.3	15.8	20.8	−5.0	−0.1
1986	1,030.8	2.8	9.5	1.0	0.5	0.4	15.9	22.9	−7.0	1.5
1987	1,033.6	−0.4	9.2	1.1	0.5	0.4	15.7	24.7	−9.0	2.6
1988	1,033.2	−8.1	8.7	1.3	0.5	0.4	13.6	30.0	−16.3	2.6
1989	1,025.1	−10.6	8.7	1.2	0.5	0.2	15.3	33.9	−18.6	2.6
1990	1,014.5	−8.4	8.0	1.5	0.5	0.1	16.1	32.0	−15.9	2.6
1991	1,006.1	−3.1	7.2	1.6	0.1 ³	−1.0	18.4	28.4	−9.9	1.1
1992 PR	1,003.0	−1.0	7.1	1.6	−	−1.2	19.7	28.2	−8.5	−
1993 PR	1,002.0	−	−	−	−	−	−	−	−	−
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹				Growth Rate by Flow ⁴
1972	925.5	−10.4	16.8	8.2	8.6	0.3				−19.0
1973	915.9	−6.7	16.2	8.4	7.8	0.5				−14.5
1974	909.8	3.0	16.6	8.6	8.0	0.9				−5.1
1975	912.5	16.6	16.6	8.3	8.3	1.7				8.3
1976	927.8	13.9	17.1	8.4	8.7	1.2				5.2
1977	940.7	11.2	17.5	8.0	9.5	1.2				1.7
1978	951.3	5.9	17.3	8.1	9.2	0.4				−3.3
1979	956.9	8.4	17.6	7.7	10.0	1.9				−1.6
1980	965.0	8.4	17.6	7.9	9.7	2.9				−1.3
1981	973.1	11.5	17.6	7.7	9.9	1.5				1.6
1982	984.4	13.0	17.9	8.3	9.6	1.1				3.4
1983	997.3	14.0	17.8	7.6	10.2	0.5				3.8
1984	1,011.3	12.7	17.7	7.6	10.1	1.1				2.6
1985	1,024.2	6.4	17.7	7.8	9.9	0.5				−3.4
1986	1,030.8	2.7	17.0	7.8	9.2	1.0				−6.4
1987	1,033.6	−0.4	16.5	7.6	8.9	1.1				−9.3
1988	1,033.2	−7.9	16.3	7.9	8.4	1.3				−16.3
1989	1,025.1	−10.4	16.3	7.8	8.6	1.1				−19.0
1990	1,014.5	−8.3	15.9	8.0	8.0	1.5				−16.3
1991	1,006.1	−3.0	15.2	8.1	7.2	1.6				−10.2 ⁵
1992 PR	1,003.0	−1.0	15.4	8.3	7.1	1.6				−8.1
1993 PR	1,002.0	−	−	−	−	−				−

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**
Alberta

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	1,686.0	30.6	18.6	0.6	4.5	0.3	60.5	54.0	6.5	-0.1
1973	1,716.6	28.8	18.5	2.2	4.6	0.7	70.5	67.8	2.7	-0.1
1974	1,745.5	42.4	18.6	4.6	4.4	-0.1	75.4	60.6	14.8	-0.1
1975	1,787.9	56.4	20.2	7.4	4.5	0.7	76.7	53.2	23.5	-0.1
1976	1,844.2	74.0	21.5	6.6	4.5	-0.2	83.5	49.3	34.2	-7.4
1977	1,918.2	76.2	22.8	4.6	4.1	-0.1	82.8	50.5	32.3	-12.5
1978	1,994.4	73.1	23.5	1.3	4.1	-0.2	82.6	50.6	32.0	-12.5
1979	2,067.5	86.5	24.9	5.2	4.0	0.7	96.1	56.9	39.2	-12.5
1980	2,154.1	103.9	27.0	12.4	3.7	1.2	106.7	59.8	46.9	-12.5
1981	2,257.9	90.0	29.8	11.6	3.6	2.5	107.6	67.3	40.2	-2.3
1982	2,347.9	43.4	32.1	8.8	4.1	-0.4	72.7	68.8	4.0	5.0
1983	2,391.4	7.2	33.0	1.5	4.0	0.0	45.9	72.1	-26.2	5.0
1984	2,398.6	2.2	31.4	2.3	3.9	0.2	39.3	69.9	-30.6	5.0
1985	2,400.8	22.1	30.6	0.5	4.3	1.2	49.9	59.5	-9.6	5.0
1986	2,422.9	14.5	30.2	2.4	3.7	2.5	49.5	69.8	-20.3	3.9
1987	2,437.4	11.2	28.8	4.6	3.8	4.6	45.3	72.9	-27.6	3.0
1988	2,448.6	35.3	28.2	7.5	3.6	4.7	54.8	60.3	-5.5	3.0
1989	2,483.9	44.8	29.5	9.8	3.3	1.9	64.7	61.3	3.4	3.0
1990	2,528.7	52.0	28.9	12.4	3.1	-0.4	67.4	56.3	11.1	3.0
1991	2,580.7	36.5	28.3	8.3	1.2 ³	-6.0	67.0	61.1	5.9	1.3
1992 PR	2,617.2	29.7	28.1	8.7	-	-5.7	63.3	64.6	-1.3	-
1993 PR	2,646.9	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
	1,686.0	18.0	17.2	6.3	10.9	0.4	7.1			
	1,716.6	16.7	16.9	6.2	10.7	1.3	6.0			
	1,745.5	24.0	16.9	6.4	10.5	2.6	13.5			
	1,787.9	31.0	17.4	6.3	11.1	4.1	19.9			
	1,844.2	39.3	17.6	6.2	11.4	3.5	27.9			
	1,918.2	39.0	17.6	5.9	11.7	2.3	27.3			
	1,994.4	36.0	17.4	5.9	11.5	0.6	24.5			
	2,067.5	41.0	17.5	5.7	11.8	2.5	29.2			
	2,154.1	47.1	18.0	5.8	12.3	5.6	34.8			
	2,257.9	39.1	18.5	5.6	12.9	5.0	26.1			
	2,347.9	18.3	19.0	5.5	13.5	3.7	4.8			
	2,391.4	3.0	19.0	5.3	13.8	0.6	-10.8			
	2,398.6	0.9	18.4	5.3	13.1	1.0	-12.1			
	2,400.8	9.1	18.2	5.5	12.7	0.2	-3.5			
	2,422.9	6.0	18.0	5.6	12.4	1.0	-6.4			
	2,437.4	4.6	17.2	5.5	11.8	1.9	-7.2			
	2,448.6	14.3	17.1	5.6	11.4	3.0	2.9			
	2,483.9	17.9	17.3	5.5	11.8	3.9	6.1			
	2,528.7	20.3	16.8	5.5	11.3	4.8	9.0			
	2,580.7	14.0	16.5	5.6	10.9	3.2	3.1 ⁵			
2,617.2	11.3	16.2	5.5	10.7	3.3	0.6				
2,646.9	-	-	-	-	-	-				

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)
British Columbia**

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	2,288.0	60.4	16.5	11.9	4.7	0.3	72.3	47.4	24.9	−2.0
1973	2,348.3	72.1	16.3	17.6	4.8	0.8	87.1	56.6	30.5	−2.0
1974	2,420.4	69.5	16.3	24.0	4.7	−0.2	84.2	61.5	22.7	−2.0
1975	2,489.9	41.6	17.1	19.7	4.8	0.8	61.1	64.0	−2.9	−2.0
1976	2,531.5	32.1	17.1	11.8	4.8	−0.3	59.3	60.8	−1.5	−0.3
1977	2,563.6	43.8	18.1	7.1	4.3	−0.2	62.8	47.3	15.5	1.0
1978	2,607.5	45.6	18.2	3.8	4.3	−0.3	65.4	44.7	20.7	1.0
1979	2,653.1	65.5	19.2	9.2	4.1	0.8	76.6	43.4	33.2	1.0
1980	2,718.5	83.4	20.7	18.2	3.8	1.5	80.0	39.8	40.2	1.0
1981	2,801.9	65.3	21.6	15.5	3.4	3.3	70.4	48.8	21.6	0.1
1982	2,867.2	34.8	22.0	10.9	3.9	−0.6	45.9	47.9	−2.0	−0.6
1983	2,901.9	38.3	23.1	6.4	3.7	0.5	43.9	39.9	4.0	−0.6
1984	2,940.3	36.0	23.2	4.5	3.8	0.4	42.0	38.5	3.5	−0.6
1985	2,976.2	28.6	21.8	3.6	3.9	1.8	42.6	45.8	−3.2	−0.6
1986	3,004.8	33.9	20.8	4.3	4.0	4.5	49.5	48.6	0.9	0.6
1987	3,038.7	57.7	20.0	12.0	3.7	5.8	60.9	43.3	17.6	1.5
1988	3,096.4	74.0	20.4	17.5	3.2	8.5	67.5	41.6	25.9	1.5
1989	3,170.4	88.2	20.8	19.3	3.2	9.0	79.4	42.0	37.4	1.5
1990	3,258.6	87.7	22.0	22.5	3.1	2.8	78.4	39.7	38.7	1.5
1991	3,346.3	72.1	21.6	25.1	1.0 ³	−7.2	76.5	44.2	32.3	0.6
1992 PR	3,418.4	81.5	21.2	28.4	−	−9.4	85.2	43.9	41.2	−
1993 PR	3,499.9	−	−	−	−	−	−	−	−	−
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
	1972	2,288.0	26.0	14.9	7.8	7.1	5.1	18.9		
	1973	2,348.3	30.2	14.4	7.6	6.8	7.4	23.4		
	1974	2,420.4	28.3	14.4	7.8	6.6	9.8	21.7		
	1975	2,489.9	16.6	14.5	7.6	6.8	7.9	9.8		
	1976	2,531.5	12.6	14.1	7.4	6.7	4.6	5.9		
	1977	2,563.6	17.0	14.2	7.2	7.0	2.8	10.0		
	1978	2,607.5	17.3	14.2	7.2	6.9	1.4	10.4		
	1979	2,653.1	24.4	14.3	7.2	7.2	3.4	17.2		
	1980	2,718.5	30.2	14.5	7.0	7.5	6.6	22.7		
	1981	2,801.9	23.0	14.6	7.0	7.6	5.5	15.4		
	1982	2,867.2	12.1	14.8	7.2	7.6	3.8	4.4		
	1983	2,901.9	13.1	14.7	6.8	7.9	2.2	5.2		
	1984	2,940.3	12.2	14.8	7.0	7.9	1.5	4.3		
	1985	2,976.2	9.6	14.4	7.1	7.3	1.2	2.3		
	1986	3,004.8	11.2	13.9	7.0	6.9	1.4	4.3		
	1987	3,038.7	18.8	13.6	7.1	6.5	3.9	12.3		
	1988	3,096.4	23.6	13.7	7.2	6.5	5.6	17.1		
	1989	3,170.4	27.4	13.6	7.2	6.5	6.0	21.0		
	1990	3,258.6	26.6	13.8	7.1	6.7	6.8	19.9		
	1991	3,346.3	21.3	13.5	7.1	6.4	7.4	14.9 ⁵		
1992 PR	3,418.4	23.6	13.3	7.2	6.1	8.2	17.4			
1993 PR	3,499.9	−	−	−	−	−	−			

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)**

Yukon

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	19.9	1.1	0.3	0.0	0.0	0.0	2.8	2.2	0.6	-0.1
1973	20.9	0.2	0.3	-0.0	0.0	0.0	2.3	2.6	-0.3	-0.1
1974	21.1	0.6	0.4	-0.0	0.0	0.0	2.8	2.7	0.1	-0.1
1975	21.7	0.7	0.3	-0.0	0.1	0.0	2.8	2.5	0.2	-0.1
1976	22.4	0.3	0.3	-0.0	0.0	0.0	2.6	2.9	-0.4	-0.3
1977	22.7	0.8	0.3	-0.0	0.0	0.0	2.8	2.7	0.1	-0.4
1978	23.5	0.6	0.4	-0.0	0.0	0.0	2.7	2.8	-0.2	-0.4
1979	24.1	0.4	0.4	-0.0	0.0	0.0	2.4	2.8	-0.4	-0.4
1980	24.5	0.4	0.3	0.0	0.0	0.0	2.3	2.7	-0.4	-0.4
1981	24.9	-0.5	0.4	0.0	0.0	0.0	2.7	4.1	-1.4	-0.3
1982	24.4	-0.5	0.4	-0.0	0.1	-0.0	1.6	2.8	-1.2	-0.3
1983	23.8	-0.1	0.4	0.0	0.0	-0.0	1.6	2.4	-0.8	-0.3
1984	23.8	0.6	0.4	-0.0	0.0	0.0	1.6	1.7	-0.1	-0.3
1985	24.4	0.2	0.3	-0.0	0.0	0.0	1.6	2.0	-0.4	-0.3
1986	24.6	0.8	0.4	-0.0	0.0	-0.0	2.2	2.0	0.2	-0.2
1987	25.4	0.7	0.4	0.0	0.0	0.0	2.3	2.2	0.1	-0.2
1988	26.1	1.0	0.4	0.0	0.0	-0.0	2.4	2.1	0.3	-0.2
1989	27.1	0.6	0.4	0.1	0.0	0.0	2.3	2.3	-0.0	-0.2
1990	27.8	0.6	0.4	0.0	0.0	0.0	2.2	2.2	-0.0	-0.2
1991	28.4	1.1	0.5	0.0	0.0 ³	-0.0	2.4	1.9	0.5	-0.1
1992 PR	29.5	1.7	0.5	0.0	-	-0.1	2.9	1.7	1.2	-
1993 PR	31.1	-	-	-	-	-	-	-	-	-
	Population on January 1 st		Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹			Growth Rate by Flow ⁴
	1972	19.9	53.5	22.1	5.0	17.1	1.6			36.5
	1973	20.9	7.7	20.0	5.3	14.7	-0.9			-7.0
	1974	21.1	28.4	23.1	5.3	17.8	-0.3			10.6
	1975	21.7	30.9	18.5	5.1	13.4	-0.0			17.5
	1976	22.4	12.7	19.9	5.5	14.4	-0.7			-1.7
	1977	22.7	35.2	18.8	4.5	14.2	-1.4			21.0
	1978	23.5	25.5	18.8	3.7	15.0	-1.3			10.5
	1979	24.1	15.8	20.6	5.2	15.4	-0.3			0.5
	1980	24.5	17.1	19.3	5.2	14.1	1.4			3.0
	1981	24.9	-21.8	21.8	5.7	16.0	1.0			-37.9
	1982	24.4	-21.9	21.8	4.9	16.9	-1.7			-38.7
	1983	23.8	-2.4	22.7	4.7	17.9	0.5			-20.4
	1984	23.8	25.6	21.5	4.5	17.1	-0.4			8.6
	1985	24.4	9.7	18.9	5.0	13.9	-0.3			-4.2
	1986	24.6	31.3	19.3	4.5	14.8	-0.2			16.5
	1987	25.4	28.1	18.5	4.2	14.3	0.8			13.8
	1988	26.1	36.0	19.6	5.1	14.5	1.0			21.6
	1989	27.1	23.6	17.5	3.5	14.0	2.1			9.5
	1990	27.8	22.9	19.8	4.1	15.7	0.9			7.2
	1991	28.4	36.9	19.6	3.9	15.7	0.3			21.2 ⁵
1992 PR	29.5	55.3	18.8	4.0	14.9	1.6			40.5	
1993 PR	31.1	-	-	-	-	-			-	

See notes at the end of this table.

**Table A1. Demographic Accounts of the Provinces and Territories, 1972-1993,
New Estimates (in thousands and rates per 1,000)
Northwest Territories**

Year	Popu- lation on January 1 st	Total Growth	Natural Increase	Net Inter- national Migration ¹	Returning Canadians	Net Non- permanent Residents	Interprovincial Migration			Residual ²
							In	Out	Net	
1972	38.1	2.2	1.0	0.2	0.0	-0.0	4.4	3.5	0.9	-0.1
1973	40.3	0.8	1.0	0.1	0.0	0.0	3.6	4.0	-0.4	-0.1
1974	41.2	1.3	0.8	0.2	0.0	-0.0	4.3	4.2	0.2	-0.1
1975	42.4	1.7	1.0	0.2	0.0	0.0	4.3	3.9	0.4	-0.1
1976	44.1	0.6	1.0	0.1	0.0	-0.0	4.1	4.9	-0.8	-0.3
1977	44.7	0.4	1.0	0.1	0.0	-0.0	4.4	5.4	-1.0	-0.3
1978	45.1	0.5	1.0	0.1	0.0	-0.0	3.9	4.8	-1.0	-0.3
1979	45.6	0.7	1.1	0.1	0.0	-0.0	3.7	4.6	-0.8	-0.3
1980	46.3	0.6	1.1	0.1	0.0	0.0	3.4	4.3	-0.9	-0.3
1981	46.9	1.8	1.1	0.1	0.0	0.0	4.2	4.1	0.2	-0.4
1982	48.6	2.2	1.1	0.0	0.0	0.0	3.8	3.2	0.6	-0.4
1983	50.8	1.7	1.3	0.0	0.0	-0.0	3.4	3.4	-0.0	-0.4
1984	52.5	1.7	1.2	0.0	0.0	-0.0	3.5	3.5	0.1	-0.4
1985	54.2	1.1	1.2	-0.0	0.0	-0.0	3.4	4.0	-0.6	-0.4
1986	55.3	-0.1	1.3	-0.0	0.0	0.0	3.1	4.9	-1.8	-0.4
1987	55.2	0.6	1.3	0.0	0.0	0.0	3.5	4.7	-1.2	-0.4
1988	55.8	1.1	1.3	0.0	0.0	0.1	3.5	4.3	-0.8	-0.4
1989	56.9	1.3	1.2	-0.0	0.0	0.0	3.7	4.1	-0.4	-0.4
1990	58.3	1.9	1.4	-0.0	0.0	0.1	3.8	3.8	-0.0	-0.4
1991	60.1	1.6	1.4	0.1	0.0 ³	-0.1	3.9	3.9	0.0	-0.2
1992 PR	61.8	0.7	1.3	0.1	-	-0.1	3.3	3.9	-0.6	-
1993 PR	62.4	-	-	-	-	-	-	-	-	-
	Population on January 1 st	Total Growth Rate	Birth Rate	Death Rate	Rate of Natural Increase	Rate of Net International Immigration ¹	Growth Rate by Flow ⁴			
	38.1	55.6	31.6	6.9	24.7	4.1	30.9			
	40.3	20.5	29.6	6.1	23.4	3.4	-2.9			
	41.2	31.1	24.9	4.9	20.0	3.9	11.1			
	42.4	38.2	27.2	5.0	22.2	3.6	16.0			
	44.1	13.1	26.6	4.8	21.9	3.2	-8.8			
	44.7	9.8	26.5	4.5	22.1	2.0	-12.3			
	45.1	10.3	26.5	4.5	22.0	1.8	-11.7			
	45.6	15.3	27.9	4.5	23.5	2.4	-8.1			
	46.3	12.2	28.0	5.1	22.8	1.5	-10.7			
	46.9	37.5	27.3	4.1	23.2	1.5	14.4			
	48.6	44.0	27.4	4.7	22.7	0.6	21.3			
	50.8	31.9	28.9	4.7	24.2	0.4	7.7			
	52.5	32.1	27.1	4.4	22.6	0.6	9.5			
	54.2	19.5	26.3	3.9	22.3	-0.2	-2.9			
	55.3	-1.8	27.3	4.3	23.0	-0.2	-24.8			
	55.2	11.5	27.4	3.6	23.9	0.1	-12.4			
	55.8	19.6	27.6	3.9	23.7	0.4	-4.1			
	56.9	23.4	25.7	4.3	21.4	-0.2	2.0			
	58.3	31.8	26.8	3.8	22.9	-0.4	8.9			
60.1	26.8	26.8	3.9	22.9	1.1	3.9 ⁵				
61.8	10.6	25.4	4.0	21.4	0.9	-10.8				
62.4	-	-	-	-	-	-				

¹ Immigration: Based on Employment and Immigration data. Emigration: Based on Family Allowances and Income Tax files. Net: Difference between immigrants and emigrants. ² The residual is made up of the distribution on five years of the closure error. This error is equal to the difference between the number expected in the census by the components method and corrected enumeration of net undercoverage. This "error" encompasses the errors on the components and on the net undercount of the censuses. ³ January to May 1991. ⁴ Takes into account Non-permanent Residents, Returning Canadians and residual. ⁵ Returning Canadians for 1991 are only available from January to May and data are not available for 1992.
PR: Revised postcensal data, based on 1991 Census, dated October 13, 1993.

Note: All other data consist of final intercensal estimates. Births and deaths are provided by Vital Statistics publications.

Source: Statistics Canada, Demography Division.

Table A2. Nuptiality

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon	N.W.T.	Canada
Number of Marriages													
1978	3,841	939	6,560	5,310	45,936	67,491	8,232	7,139	18,277	21,388	194	216	185,523
1979	3,737	893	6,920	5,355	46,341	67,980	7,769	7,272	18,999	22,087	181	277	187,811
1980	3,783	939	6,791	5,321	44,848	68,840	7,869	7,561	20,818	23,830	200	269	191,069
1981	3,758	849	6,632	5,108	41,005	70,281	8,123	7,329	21,781	24,699	235	282	190,082
1982	3,764	855	6,486	4,923	38,354	71,595	8,264	7,491	23,312	23,831	225	260	188,360
1983	3,778	937	6,505	5,260	36,144	70,893	8,261	7,504	21,172	23,692	243	286	184,675
1984	3,567	1,057	6,798	5,294	37,433	71,922	8,393	7,213	20,052	23,397	212	259	185,597
1985	3,220	956	6,807	5,312	37,026	72,891	8,296	7,132	19,750	22,292	185	229	184,096
1986	3,421	970	6,445	4,962	33,083	70,839	7,816	6,820	18,896	21,826	183	257	175,518
1987	3,481	924	6,697	4,924	32,616	76,201	7,994	6,853	18,640	23,395	189	237	182,151
1988	3,686	965	6,894	5,292	33,519	78,533	7,908	6,767	19,272	24,461	209	222	187,728
1989	3,905	1,019	6,828	5,254	33,325	80,377	7,800	6,637	19,888	25,170	214	223	190,640
1990	3,791	996	6,386	5,044	32,060	80,097	7,666	6,229	19,806	25,216	218	228	187,737
1991	3,480	876	5,845	4,521	28,922	72,938	7,032	5,923	18,612	23,691	196	215	172,251
1992	3,254	850	5,623	4,313	25,841	70,079	6,899	5,664	17,871	23,749	221	209	164,573

Sources: Statistics Canada, Vital Statistics, *Marriages and Divorces*, annual, and Canadian Centre on Health Information, *Marriages* (annual) from 1987 to 1991.

Table A3.1 Age-specific First Marriage Rates (per 1,000) for Male Cohorts, 1943-1974, Canada (former estimates)

Age	Year of Birth																															
	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943
	Year of 17th Birthday																															

Source: Statistics Canada, calculations by the author from population estimates, and marriage data published by the Canadian Centre for Health Information.

Table A3.2 Age-specific First Marriage Rates (per 1,000) for Females Cohorts, 1943-1976, Canada (former estimates)

Age	Year of Birth																			
	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957
	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
Females																				
15	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.5	0.5	0.5	0.5	0.5	1.1	1.8	2.2	2.5	2.8	3.5	3.5
16		1.5	1.7	4.0	2.0	2.2	2.5	3.1	3.6	3.9	4.6	5.0	5.9	6.6	7.8	9.2	11.4	13.9	15.8	17.4
17				13.9	4.7	4.9	5.6	6.2	7.6	8.5	9.6	11.1	12.8	15.3	17.2	19.7	23.7	27.4	33.0	36.1
18					24.8	16.9	17.1	18.6	22.3	24.7	25.8	29.8	34.6	39.1	45.4	49.8	54.6	61.6	68.1	77.6
19						27.9	30.6	32.7	33.8	39.3	41.1	44.4	49.8	56.8	64.2	70.5	74.5	79.6	85.3	91.3
20						37.3	43.2	47.7	48.2	50.4	53.6	58.1	61.6	67.1	76.0	81.4	87.4	90.0	92.4	96.2
21							50.0	57.6	61.0	62.9	63.5	65.6	69.7	74.3	75.6	81.8	84.7	89.3	89.5	90.8
22								59.9	67.7	69.4	70.3	68.8	72.1	73.1	74.1	74.3	76.7	80.0	79.0	79.4
23									66.1	71.3	71.8	71.4	69.7	67.6	69.5	68.4	67.1	68.4	67.5	66.5
24											69.6	70.6	66.8	62.9	60.3	59.6	58.2	56.2	55.7	53.0
25											57.9	62.6	61.4	58.4	53.9	49.9	49.8	47.4	44.5	43.3
26												49.6	40.5	42.8	38.6	41.3	39.7	37.4	35.4	33.7
27														32.2	33.4	31.7	28.9	26.3	22.9	22.8
28															25.4	26.6	24.7	23.2	20.5	17.8
29																20.2	20.8	19.8	17.5	15.9
30																	15.3	16.0	14.7	13.7
31																		12.4	12.7	11.7
32																			9.8	8.4
33																				8.2
34																				
35																				
36																				
37																				
38																				
39																				
40																				
41																				
42																				
43																				
44																				
45																				

Source: Statistics Canada, calculations by author from population estimates, and marriage data published by the Canadian Centre for Health Information.

Table A4. Fertility

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon	N.W.T.	Canada
Number of Live Births													
1978	10,480	1,985	12,548	10,790	94,860	120,964	16,397	16,550	35,396	37,231	447	1,204	358,852
1979	10,170	1,934	12,406	10,848	98,646	121,655	16,242	16,944	37,003	38,432	501	1,283	366,064
1980	10,332	1,958	12,369	10,636	97,421	123,316	15,989	17,057	39,749	40,104	476	1,302	370,709
1981	10,130	1,897	12,079	10,503	95,322	122,183	16,073	17,209	42,638	41,474	536	1,302	371,346
1982	9,173	1,924	12,325	10,489	90,800	124,856	16,123	17,722	45,036	42,747	525	1,362	373,082
1983	8,929	1,907	12,401	10,518	88,154	126,826	16,602	17,847	45,555	42,919	540	1,491	373,689
1984	8,560	1,954	12,378	10,360	87,839	131,296	16,651	18,014	44,105	43,911	519	1,444	377,031
1985	8,500	2,008	12,450	10,121	86,340	132,208	17,097	18,162	43,813	43,127	464	1,437	375,727
1986	8,100	1,928	12,358	9,788	84,634	133,882	17,009	17,513	43,744	41,967	483	1,507	372,912
1987	7,769	1,955	12,110	9,588	83,791	134,617	16,953	17,034	42,110	41,814	478	1,523	369,742
1988	7,487	1,977	12,182	9,617	86,612	138,066	17,030	16,763	42,055	42,930	521	1,555	376,795
1989	7,762	1,937	12,533	9,667	92,373	145,338	17,321	16,651	43,351	43,769	480	1,479	392,661
1990	7,604	2,014	12,870	9,824	98,048	150,923	17,352	16,090	43,004	45,617	556	1,584	405,486
1991	7,163	1,884	12,011	9,497	97,366	151,433	17,274	15,297	42,762	45,594	567	1,633	402,481
1992	6,918	1,850	11,874	9,389	96,146	150,593	16,590	15,004	42,039	46,156	529	1,554	398,642
Fertility Rate by Age Group (p. 1,000) ¹													
1989: 15-19	33.8	30.8	29.7	29.5	17.0	20.5	41.8	45.4	35.5	23.9	38.6	109.8	24.6
20-24	89.2	89.9	84.1	95.7	76.3	68.0	96.8	116.3	94.9	78.5	109.2	155.6	78.7
25-29	107.7	135.4	115.7	109.9	120.2	116.6	126.1	142.9	127.7	112.9	105.6	146.1	119.2
30-34	57.2	82.2	70.6	58.4	69.2	85.5	85.7	79.3	89.4	80.9	82.3	84.1	79.1
35-39	17.0	21.6	20.7	13.8	19.8	30.0	28.2	22.3	29.0	28.8	30.5	35.8	25.8
40-44	1.9	5.6	3.2	2.1	2.7	4.5	4.4	3.1	3.8	4.0	3.7	7.7	3.7
45-49	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.1	0.0	0.9	0.1
1990: 15-19	34.3	34.6	32.6	30.5	18.1	21.4	41.0	44.7	36.9	24.2	57.4	95.9	25.5
20-24	83.5	94.6	83.7	91.0	80.3	68.2	97.3	115.0	93.1	78.4	118.7	177.9	79.3
25-29	108.4	142.0	116.2	116.5	128.0	118.9	131.8	142.7	125.2	114.5	116.7	145.7	122.4
30-34	58.1	85.1	75.5	61.0	75.7	89.5	86.6	83.9	87.1	84.4	97.0	97.2	83.0
35-39	16.5	27.1	23.9	15.4	22.4	31.2	28.4	24.2	30.4	30.8	36.9	32.9	27.5
40-44	2.3	3.2	3.2	1.9	2.9	4.5	3.9	2.6	4.0	4.5	4.3	8.3	3.8
45-49	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.0	0.2	0.1	0.0	0.9	0.1
1991: 15-19	30.8	33.5	31.0	30.8	17.2	22.0	43.9	46.0	38.4	24.9	42.6	110.9	25.7
20-24	80.2	85.1	79.4	89.8	79.9	65.7	96.4	111.0	92.8	76.6	121.0	173.9	77.5
25-29	100.9	136.5	111.2	110.7	128.8	115.8	132.5	140.0	123.8	112.4	130.0	136.6	120.4
30-34	57.7	80.7	69.3	59.8	78.0	90.5	87.8	80.0	86.5	84.8	89.8	101.2	83.7
35-39	16.2	30.5	22.1	15.2	23.0	32.8	27.8	24.8	31.2	30.7	35.0	43.4	28.3
40-44	2.4	3.5	2.9	1.7	3.0	4.5	4.3	3.1	4.2	4.5	7.9	6.2	3.9
45-49	0.2	0.0	0.3	0.0	0.1	0.2	0.2	0.0	0.3	0.2	1.3	0.0	0.2

See notes at the end of this table.

Table A4. Fertility - Concluded

Year	Nfld ²	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon	N.W.T.	Canada
Fertility Rate by Parity (for 1,000 women) ¹													
1989:													
1	-	26.3	25.5	24.4	26.2	25.7	28.0	27.1	27.2	24.9	28.1	34.1	26.0
2	-	20.4	19.8	19.0	19.0	20.5	21.9	23.7	24.4	20.4	23.0	29.4	20.6
3	-	10.9	8.4	7.7	6.9	8.7	11.0	14.0	11.5	8.7	7.3	18.4	8.8
4	-	4.4	2.3	2.1	1.6	2.5	4.0	5.3	3.9	2.6	4.4	9.6	2.6
5+	-	1.7	1.0	0.7	0.7	1.0	2.6	3.5	2.2	1.0	1.5	8.8	1.2
1990:													
1	-	26.5	26.7	24.9	27.1	26.6	28.2	26.3	26.8	25.6	31.7	34.3	26.7
2	-	22.9	19.9	19.2	20.5	20.9	21.8	23.5	23.4	20.4	25.8	30.9	21.1
3	-	11.3	8.2	7.5	7.5	8.6	11.1	13.8	11.2	8.6	10.1	19.0	8.8
4	-	3.9	2.6	2.0	1.9	2.5	4.0	5.5	3.9	2.6	4.1	9.8	2.6
5+	-	1.8	1.1	0.8	0.7	1.1	2.9	3.4	2.2	1.2	2.1	9.8	1.3
1991:													
1	22.2	24.3	24.4	23.9	26.8	25.9	28.3	25.0	26.4	24.9	31.0	34.4	25.9
2	17.5	22.0	18.8	18.6	20.2	20.5	21.2	22.9	22.9	20.0	23.9	31.1	20.6
3	6.5	10.7	8.0	7.1	7.6	8.6	10.9	12.9	11.0	8.7	10.8	18.9	8.8
4	2.0	3.7	2.3	1.9	2.0	2.5	4.3	5.3	3.8	2.5	3.8	11.0	2.7
5+	0.9	2.0	1.0	0.7	0.8	1.2	3.0	3.3	2.2	1.2	2.2	9.5	1.3
Total Fertility Rate (women aged 15 to 49) ^{1, a}													
1978	-	2.04	1.75	1.76	1.63	1.63	1.88	2.17	1.88	1.63	1.80	2.90	1.70
1979	-	1.94	1.70	1.75	1.67	1.61	1.86	2.18	1.85	1.63	1.95	3.02	1.70
1980	-	1.94	1.67	1.69	1.62	1.61	1.82	2.13	1.85	1.63	1.79	3.02	1.67
1981	-	1.87	1.62	1.67	1.57	1.57	1.82	2.11	1.86	1.63	2.06	2.83	1.65
1982	-	1.89	1.64	1.66	1.48	1.59	1.80	2.14	1.89	1.65	1.96	2.81	1.64
1983	-	1.83	1.63	1.65	1.43	1.59	1.83	2.10	1.90	1.65	2.16	3.00	1.62
1984	-	1.84	1.60	1.61	1.43	1.62	1.82	2.08	1.86	1.68	2.07	2.80	1.63
1985	-	1.86	1.60	1.57	1.40	1.60	1.85	2.08	1.86	1.65	1.83	2.66	1.61
1986	-	1.78	1.58	1.53	1.37	1.60	1.83	2.02	1.85	1.61	1.92	2.81	1.59
1987	1.53	1.82	1.55	1.51	1.37	1.58	1.83	1.98	1.82	1.60	1.88	2.82	1.58
1988	1.47	1.85	1.57	1.53	1.43	1.59	1.85	1.99	1.84	1.64	1.98	2.90	1.60
1989	1.53	1.83	1.62	1.55	1.53	1.63	1.92	2.05	1.90	1.65	1.85	2.70	1.66
1990	1.52	1.93	1.68	1.58	1.64	1.67	1.95	2.07	1.88	1.68	2.15	2.79	1.71
1991	1.44	1.85	1.58	1.54	1.65	1.66	1.96	2.02	1.89	1.67	2.14	2.86	1.70

^a Number of children per woman.

¹ Calculations done by Demography Division from final population estimates (July 1st) and data from Vital Statistics.

² Births by parity in Newfoundland are only available since 1991.

Sources: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue No. 84-204 annual, 1978-1986; Canadian Centre for Health Information, Health Reports, *Births*, Catalogue No. 82-003 annual, 1987-1991.

Table A5. Mortality

Year	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alb.	B.C.	Yukon	N.W.T.	Canada
Number of Deaths													
1978	3,115	994	6,877	5,183	43,552	61,116	8,297	7,749	11,944	19,058	89	205	168,179
1979	3,136	1,022	6,843	5,172	43,311	61,468	8,217	7,369	12,109	19,204	127	205	168,183
1980	3,345	1,035	7,004	5,297	43,512	62,746	8,436	7,651	12,710	19,371	128	238	171,473
1981	3,230	992	6,958	5,139	42,684	62,838	8,648	7,523	12,823	19,857	141	196	171,029
1982	3,385	980	6,941	5,197	43,497	63,696	8,490	8,202	12,968	20,707	118	232	174,413
1983	3,498	1,050	7,047	5,206	44,275	64,507	8,521	7,611	12,588	19,827	113	241	174,484
1984	3,520	1,109	6,913	5,272	44,449	64,703	8,290	7,710	12,730	20,686	108	237	175,727
1985	3,557	1,110	7,315	5,230	45,707	66,747	8,756	8,031	13,231	21,302	123	214	181,323
1986	3,540	1,121	7,255	5,458	46,892	67,865	8,911	8,061	13,560	21,213	113	235	184,224
1987	3,629	1,116	7,112	5,408	47,616	68,119	8,710	7,808	13,316	21,814	108	197	184,953
1988	3,591	1,112	7,412	5,450	47,771	70,679	9,100	8,100	13,894	22,546	136	220	190,011
1989	3,718	1,089	7,516	5,496	48,305	70,907	8,819	7,920	13,854	22,997	95	249	190,965
1990	3,884	1,143	7,388	5,426	48,420	70,818	8,863	8,044	14,068	23,577	115	227	191,973
1991	3,798	1,188	7,255	5,469	49,121	72,917	8,943	8,098	14,451	23,977	114	237	195,568
Number of Infant Deaths													
1978	128	15	149	127	1,126	1,373	225	236	405	472	5	28	4,289
1979	109	21	148	124	1,040	1,247	211	194	423	434	8	35	3,994
1980	110	22	135	116	953	1,175	184	193	500	442	9	29	3,868
1981	98	25	139	114	807	1,073	191	203	452	424	8	28	3,562
1982	99	15	106	110	800	1,041	146	186	442	423	11	22	3,401
1983	95	16	116	112	676	1,013	173	180	383	377	10	31	3,182
1984	79	16	97	81	645	992	144	169	425	378	7	25	3,058
1985	92	8	98	97	626	961	170	200	352	349	5	24	2,982
1986	65	13	104	81	604	969	157	157	393	355	12	28	2,938
1987	59	13	90	67	594	888	142	155	315	359	5	19	2,706
1988	70	14	79	69	563	910	132	140	347	362	3	16	2,705
1989	64	12	73	69	632	985	115	134	325	360	2	24	2,795
1990	70	12	81	71	612	946	138	123	346	344	4	19	2,766
1991	56	13	69	58	577	952	112	126	285	298	6	19	2,571

Sources: Statistics Canada, Vital Statistics, *Births and Deaths*, Catalogue No. 84-204 annual, 1978-1986; Canadian Centre for Health Information, Health Reports, *Deaths*, Catalogue No. 82-003 annual, 1987-1991.

Table A6. Estimated Life Expectancy at Different Ages, Canada, 1990 and 1991

Age	1990 Table (Triennial) ¹		1991 Table (Preliminary) ²	
	Males	Females	Males	Females
0	73.90	80.49	74.19	80.72
1	73.46	79.98	73.73	80.21
5	69.58	76.08	69.84	76.30
10	64.65	71.14	64.91	71.36
15	59.74	66.20	59.99	66.42
20	55.02	61.32	55.27	61.54
25	50.35	56.44	50.60	56.65
30	45.65	51.56	45.90	51.78
35	40.96	46.71	41.20	46.92
40	36.28	41.89	36.53	42.10
45	31.66	37.14	31.90	37.35
50	27.18	32.51	27.42	32.70
55	22.92	28.02	23.14	28.20
60	18.95	23.72	19.16	23.90
65	15.38	19.63	15.56	19.81
70	12.18	15.82	12.35	16.01
75	9.40	12.34	9.52	12.49
80	7.04	9.26	7.16	9.42
85	5.20	6.74	5.27	6.85
90	3.69	4.76	3.77	4.85

¹ Calculated with the average of deaths in 1989, 1990 and 1991.

² Calculated with the average of deaths in 1990 and 1991.

Note: In the two cases, the denominators of the rates are the 'old' mid-year population estimates.

Source: Author's calculations.

Table A7. Immigrant Population in Canada by Country of Birth, 1980-1992

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 ³
Europe	40,210	44,784	44,356	23,664	20,581	18,530	22,518	36,486	38,598	50,844	50,561	46,651	43,297
Great Britain ¹	16,445	18,912	14,525	4,945	4,657	3,998	4,612	7,650	7,476	6,244	6,897	6,383	5,818
Portugal	4,222	3,292	2,308	1,373	869	917	1,981	5,904	3,976	5,094	5,405	5,837	2,697
France	1,461	1,681	1,821	1,237	970	994	1,124	1,486	1,809	2,128	1,996	2,617	3,102
Greece	1,044	924	884	617	578	579	555	750	590	798	604	618	592
Italy	1,873	2,057	1,496	879	892	733	785	1,123	955	1,204	1,066	775	663
Poland	1,395	4,093	9,259	5,374	4,640	3,642	5,283	7,132	9,308	16,042	16,536	15,737	11,912
Others	13,770	13,825	14,063	9,239	7,975	7,667	11,480	12,441	14,484	19,334	18,057	14,684	18,513
Africa	5,383	5,901	5,196	3,913	3,851	3,912	5,189	9,048	9,497	12,483	13,846	16,530	20,091
Asia	73,026	50,759	43,863	38,183	42,730	39,438	42,417	69,146	82,334	95,393	113,978	122,228	141,773
Philippines	6,147	5,978	5,295	4,597	3,858	3,183	4,203	7,420	8,636	11,907	12,590	12,626	13,717
India	9,531	9,415	8,858	7,810	6,082	4,517	7,481	10,635	11,864	10,738	12,572	14,248	14,209
Hong Kong (B.C.C.)	3,874	4,039	4,452	4,238	5,013	5,121	4,318	12,618	18,033	15,694	23,134	16,425	27,873
China	8,965	9,798	6,295	5,321	5,769	5,166	4,178	6,611	7,784	9,001	14,193	20,621	22,131
The Middle East ²	4,665	5,409	5,321	3,964	4,951	5,239	6,947	10,904	12,325	17,697	23,826	25,561	21,803
Others	39,844	16,120	13,642	12,253	17,057	16,212	15,290	20,958	23,692	30,356	27,663	32,747	42,040
North America and Central America	9,442	10,183	10,030	10,200	10,223	10,898	12,412	13,691	11,435	11,899	13,042	18,899	18,658
United States	8,098	8,695	7,841	6,136	5,727	5,614	6,094	6,547	5,552	5,814	5,067	5,270	5,882
The Antilles and Bermuda	7,515	8,797	8,717	7,258	5,696	6,240	8,948	11,210	9,440	10,967	11,784	13,046	15,131
Australasia	1,215	1,020	758	394	430	399	449	540	525	634	725	735	916
South America	5,381	6,114	6,892	4,825	4,046	4,273	6,546	10,833	7,178	8,595	8,602	10,468	10,231
Oceania	944	1,024	1,183	720	599	612	740	1,144	1,135	1,186	1,692	2,213	2,477
Others	1	36	152	-	83	-	-	-	-	-	-	11	-
Total	143,117	128,618	121,147	89,157	88,239	84,302	99,219	152,098	160,143	192,001	214,230	230,228	252,574

¹ Includes England, North Ireland, Scotland, Wales and the British Isles.

² Includes Turkey, Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Arab Emirates, Yemen Arab Republic and Yemen Dem. Republic.

³ Preliminary as of August 31, 1993.

Source: Employment and Immigration Canada, *Immigration Statistics*, annual publication.

**Table A8. Canadian Population as of January 1st, 1991 and 1992, by Age and Sex
(former estimates) (in thousands)**

Age	1991		1992	
	Males	Females	Males	Females
0	205.6	195.6	210.1	199.6
1	201.9	192.3	206.9	196.7
2	194.1	185.1	203.0	193.3
3	191.5	182.9	195.3	186.2
4	191.8	183.1	192.8	184.2
5	191.1	181.4	193.2	184.5
6	190.9	181.0	192.6	182.7
7	190.3	181.3	192.3	182.3
8	190.4	181.2	191.8	182.7
9	190.8	181.8	191.9	182.6
10	192.0	182.5	192.2	183.1
11	190.4	180.6	193.4	183.8
12	186.9	177.4	191.8	181.9
13	186.6	177.2	188.2	178.6
14	188.1	178.7	187.9	178.4
15	188.4	178.7	189.3	179.8
16	186.3	177.3	189.6	179.9
17	184.7	175.9	187.3	178.4
18	189.7	179.7	185.7	177.0
19	197.7	187.7	190.8	181.0
20	204.6	194.8	198.9	189.1
21	202.5	192.4	206.0	196.5
22	199.6	191.3	204.2	194.3
23	200.9	195.2	201.5	193.4
24	208.9	204.5	203.1	197.5
25	222.5	219.4	211.4	207.0
26	235.3	233.2	225.4	222.0
27	240.9	240.0	238.5	236.0
28	241.9	242.7	244.0	242.8
29	242.5	243.9	244.8	245.3
30	244.6	246.0	245.2	246.5
31	241.5	243.8	247.1	248.4
32	239.1	242.2	243.8	246.1
33	238.4	241.7	241.4	244.4
34	234.4	238.0	240.6	243.9
35	230.6	234.1	236.4	240.0
36	227.4	232.1	232.3	235.9
37	220.2	225.2	228.9	233.7
38	213.4	217.3	221.5	226.6
39	208.7	211.2	214.5	218.5
40	206.1	207.8	209.7	212.3
41	203.1	205.0	206.9	208.8
42	202.3	204.3	203.7	205.8
43	204.1	205.0	202.9	205.0
44	193.1	193.3	204.5	205.5
45	171.6	170.9	193.4	193.7
46	164.8	163.6	171.8	171.2

Table A8. Canadian Population as of January 1st, 1991 and 1992, by Age and Sex (former estimates) (in thousands) - Concluded

Age	1991		1992	
	Males	Females	Males	Females
47	161.2	160.6	164.8	163.8
48	153.7	153.3	161.2	160.8
49	144.6	144.4	153.6	153.5
50	138.2	138.8	144.4	144.6
51	132.4	133.0	138.0	139.0
52	128.5	128.8	132.2	133.2
53	124.1	125.0	128.2	128.9
54	122.5	124.0	123.7	125.1
55	121.3	123.3	122.0	124.0
56	118.3	120.4	120.7	123.3
57	118.8	120.7	117.6	120.4
58	120.9	123.0	118.0	120.6
59	120.0	123.0	119.9	122.9
60	118.6	123.3	118.9	122.9
61	114.9	120.9	117.4	123.0
62	111.1	118.8	113.6	120.5
63	109.2	118.6	109.6	118.3
64	106.0	118.0	107.5	118.0
65	103.1	117.9	104.2	117.2
66	99.4	116.0	101.1	117.0
67	95.3	113.5	97.1	114.9
68	92.4	111.9	92.9	112.3
69	89.6	110.4	89.9	110.6
70	84.1	105.6	87.1	109.0
71	75.6	96.6	81.7	104.0
72	66.0	86.5	73.0	95.0
73	62.7	83.4	63.2	84.8
74	60.0	81.6	59.7	81.4
75	58.2	80.1	56.9	79.4
76	55.4	77.9	55.1	77.8
77	50.3	72.6	52.3	75.5
78	45.0	66.7	47.3	70.2
79	39.7	61.3	42.0	64.1
80	35.5	56.5	36.7	58.6
81	31.3	51.2	32.6	53.8
82	27.1	46.6	28.5	48.4
83	23.4	41.9	24.4	43.7
84	19.9	37.4	20.8	39.0
85	16.8	33.4	17.5	34.5
86	14.3	29.2	14.7	30.6
87	12.0	25.2	12.3	26.6
88	9.8	21.3	10.2	22.7
89	7.8	18.1	8.3	18.9
90 +	22.4	66.3	23.6	69.9
Total	13,233.5	13,607.4	13,433.0	13,810.0

Source: Statistics Canada, Demography Division, Estimates Section.

1991: Updated postcensal estimates.

1992: Preliminary postcensal estimates.

Part II

The Demographic Situation of Mexico at the Signing of NAFTA

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Alejandro Negrin, Second Secretary, Embassy of Mexico in Canada.

PRESENTATION

Introduction

Any time two countries are preparing to join forces, it is normal that each of them should attempt to obtain a better understanding of the other, and normally this is done by means of comparisons. Only the comparable can be compared, however. Thus, if we were to confine ourselves to a systematic listing of the differences between Mexico's population and that of Canada, we would arrive at misleading conclusions both from a historical and a social point of view, since those differences are huge at any given moment. The population of Mexico is that of a developing country in the midst of a demographic transition, while the population of Canada has built one of the world's most highly industrialized countries, already entering the as yet uncharted "post-transition" phase. Moreover, Canada and Mexico have very little in common: neither geography, climate, culture, nor language, nor any aspect of their history to date. They now find themselves, through a rapid broadening of international relations, advances in communications, and thus a restructuring of the economies of the great regions of the world, in a position of acting as neighbours and forging relations that would formerly have been judged almost inconceivable and certainly unnecessary. It is a sign of new times and a major challenge that simple economic interests can suddenly attain such importance that they serve as the basis for lasting relations and strong ties between countries, despite major differences in areas that were once felt to be fundamental.

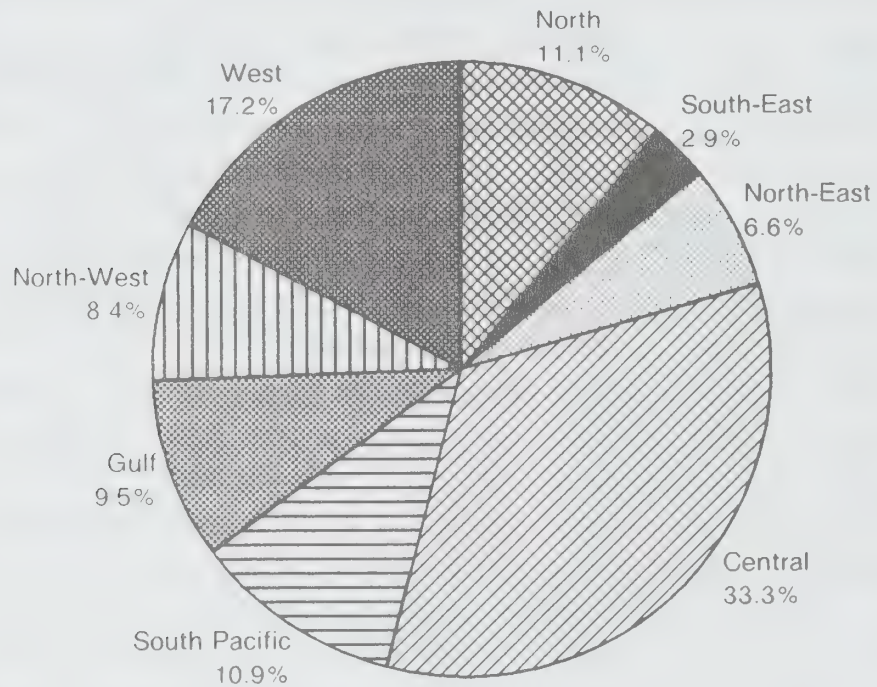
In keeping with the style of the "Current Demographic Analysis" series, the text that follows is intended to give a brief but comprehensive presentation, supported by relevant statistics, of the Mexican demography and the principal mechanisms at work in its development, to provide some measurement of the speed of transformation, describe structural changes, and present the policies implemented by the Mexican government to adapt the economy of the country to its rapidly changing population. This description is designed simply to show the current status of the Mexican population based on available data and, if it does not amount to only a collection of statistics, this is because these must, in many cases, be critically examined and explained before the reader can draw any valid conclusions from them.

There may well be some criticism of the fact that certain areas are either not dealt with or are handled very superficially. We deemed it desirable to confine ourselves fairly strictly to the field of demography, fully aware that, apart from the interest of a few experts in the field, demographic description is not an end in itself, but in fact only one component of a portrait of a society.

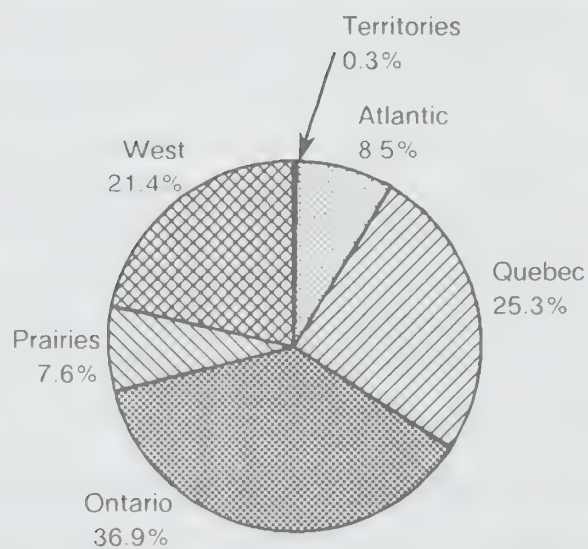
Drawing up an analytical description of demographic change in a country basically amounts to showing and explaining changes in the volume, structure and distribution of its population. Volume and structure, however, both depend

Figure 1

**Distribution of the Canadian (1991) and Mexican (1990)
Populations by Region**



Mexico 1990
Population: 81,250,000



Canada 1991
Population: 27,297,000

Sources: Census of Mexico (1990) and Census of Canada (1991).

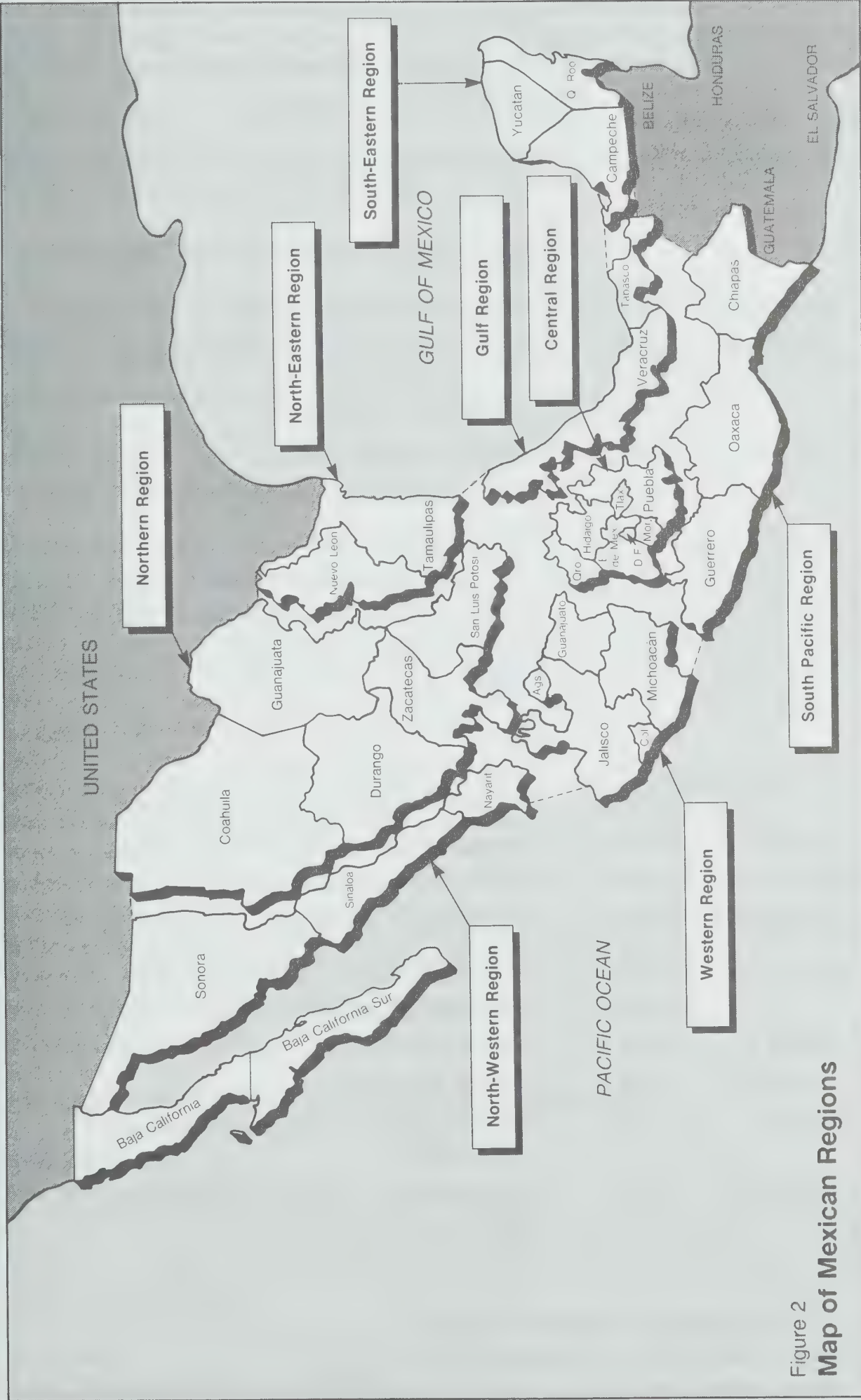


Figure 2
Map of Mexican Regions

Key Dates Marking Mexico's Recent History and Demographic Development

September	1821:	Declaration of independence
	1824:	Adoption of Mexican constitution
	1836:	Texas, New Mexico and California declare their independence
February 2	1848:	Treaty of Guadalupe-Hidalgo
January 27	1857:	Act creating the Vital Statistics Registry
	1858:	Loss of the Messilla Valley – Mexico's present boundaries established
	1864:	Second Empire begins
	1867:	Restoration of the republic
May 26	1882:	Statistics Branch set up
	1884-1911:	Porfiriato period (Porfirio Diaz)
	1910-1917:	Armed conflict period of the Mexican revolution
	1928:	Act regarding family relations and the new Civil Code
	1929:	Formation of the National Revolutionary Party
August 24	1936:	First law regarding population
	1938:	Nationalization of oil companies and railroads
August 4	1942:	Implementation of BRACERO program
	1946:	New legislation on colonization
December 23	1947:	Second umbrella legislation on population
	1959:	Creation of Family Welfare Association
	1966:	Opening of first (IPPF)¹ clinic
March 13	1973:	New health code (authorizing sale of contraceptives)
January 7	1974:	General Population Act
May 27	1974:	Creation of National Population Council (CONAPO)
October 28	1977:	Presentation of National Family Planning Plan
	1982:	Nationalization of banks

¹ International Planned Parenthood Federation.

Note: In bold: key dates of demographic events.

on changes in births, deaths and migrations as well as on the interactions between them. Although these phenomena are closely linked, a clearer picture may be obtained if we describe them separately.

We will discuss growth, fertility, mortality and migrations in that order, and then will describe some characteristics of the population which may contribute to an understanding of its behaviour.

Geographical organization of the population

Mexico is a country with a population of some 84 million¹ (about three times more populated than Canada). It is made up of 32 federated entities (31 states and one federal district), hence the name, United States of Mexico; 25 of these states have a population of over a million. Half the population (50.8%), however, is concentrated in only seven states, but there are seven other states with a population of under a million which together account for only 5% of the total population of the country.

This description does not fairly portray the exact distribution of the population. Although no official rule exists, Mexicans often divide their country into eight regions of unequal size (Figure 1), each made up of varying numbers of states (Table 1A in Appendix). The largest is the central region, where a third of the population is concentrated, and the smallest in terms of population is the southeast, which with three states has 2.9% of the total population of the country.

Looking at Table 1A (in the Appendix), we see that in the past 30 years, the population of Mexico has increased close to two and a half times, but the distribution by region has not changed significantly. The most noteworthy increase took place in the central region, which grew from 31% of the total in 1960 to 33% in 1990. The region which has lost the most ground is the North, which accounted for 14% of the national total and now has only 11%. This overall growth does, however, mask quite significant differences between states which cannot be described in this brief general presentation.

MEXICAN SOURCES OF DEMOGRAPHIC DATA

Introduction

Before we embark on a description of changes in demographic phenomena in Mexico, we must identify and weigh the validity of the sources of data used, as well as the role played by the organizations which publish information. The most important are:

¹ The 1980 Census count was 81,249,645.

- 1) the National Institute of Statistics, Geography and Informatics (INEGI), which is the organization mandated by the government to collect information and prepare statistics both at the national level and for regional and local administrative units (states and municipalities²);
- 2) the Demographic Studies Centre of the College of Mexico, which since 1964 has trained almost all Mexican demographers and employs many researchers of international repute;
- 3) the Social Research Institute of the Autonomous National University of Mexico, which has carried out a number of major projects since the early 1970s;
- 4) the National Population Registry, which began publishing vital statistics figures in 1982;
- 5) the Family Planning Coordination Services of the Secretariat of Health and the Mexican Institute of Social Security. These two bodies have played a major role in conducting and analyzing surveys;
- 6) the National Population Council (CONAPO) which since 1973 has been responsible for the country's demographic planning, and
- 7) the recently founded Centre for Studies on Population and Health (CEPS) of the Secretariat of Health, which publishes studies and analyses mainly in the fields of mortality and morbidity, not to mention other institutions such as the Mexican Demography Society.

Censuses

Mexico has a long history of keeping population statistics. For earlier periods, there are, as in Quebec, various types of parish records that were kept throughout the colonial period and even afterwards by the Catholic clergy.

In modern times, the first large-scale undertaking to gain more information on the Mexican population³ was in 1895, the year of the first Census. A second Census was held five years later (1900) and another every 10 years since then, with the most recent taking place in 1990, giving the situation as of March 12 (see tables 1A and 1B).

Given the problems caused by Mexico's particularly difficult geography, along with poor facilities and services early in this century, lack of education, a traditionally haphazard administrative system and the revolution that wracked the country from 1910 to 1920, it is not surprising that the quality of census data has been erratic over time.

² Translation of "municipio."

³ Mexico has traditionally considered it highly important to know as much as possible about its population. After several attempts to collect statistical information on the population, the National Bureau of Statistics was founded in 1882 and the National Institute for Geography and Statistics (in 1850), which has since become the Mexican Society for Geography and Statistics.

Table 1A. Main Characteristics of Mexican Censuses, 1895 to 1990

Year	Date	Surveyed Population	Survey Unit	Origin of Information	People per Questionnaire	Year of Publication
1895	October 20	De facto/de jure ¹	Family	Self-enumeration	..	1899
1900	October 27	De facto ²	Family	Self-enumeration	..	1904
1910	October 25	De facto ³	Family	Interview	..	1918-1920
1921	November 30	De facto ³	Family	Interview	..	1928
1930	May 15	De jure	Collectively	Interview	100	1934
1940	March 6	De jure	Collectively	Interview	80	1948
1950	June 6	De jure	Collectively	Interview	45	1955
1960	June 8	De jure	Collectively	Interview	50	1962-1963
1970	January 28	De jure	Household	Interview	14	1971-1972
1980	June 4	De jure	Household	Interview	14	1984-
1990	March 12	De jure	Household	Interview	..	1992-

¹ Three questionnaires were used: The first one was intended for the resident population, the second for transients and the third, for the temporarily absent population. Publications present separated results for the three types of populations and for de facto and de jure population.

² Three questionnaires were used; but the data were not published separately and, according to the General Directorate of Statistics (GDS), we can consider the population as de facto.

³ The census questionnaire was written with the goal of enumerating de jure population, but the modifications made to the questionnaire did not reach that goal. So the survey enumerated de facto population (GDS).

Table 1B. Main Characteristics of Canadian Censuses, 1851 to 1991

Year	Date	Surveyed Population	Survey Unit	Origin of Information	Year of Publication
1851-1852 ¹	January 12, 1852	De jure	Household	Interview	1853
1860-1861 ¹	Without	De jure	Household	Interview	1863
1871 ²	April 2	De jure	Household	Interview	1873
1881 ³	April 4	De jure	Household	Interview	1882
1891 ⁴	April 5	De jure	Household	Interview	1893
1901	April 1st	De jure	Household	Interview	1902
1911 ⁵	June 1st	De jure	Household	Interview	1912
1921	June 1st	De jure	Household	Interview	1924
1931	June 1st	De jure	Household	Interview	1936
1941	June 11	De jure	Household	Interview	1950
1951	June 1st	De jure	Household	Interview	1953
1956 ⁶	June 1st	De jure	Household	Interview	1958
1961	June 1st	De jure	Household	Interview	1963
1966	June 1st	De jure	Household	Interview	1969
1971	June 1st	De jure	Household	Self-enumeration	1974
1976	June 1st	De jure	Household	Self-enumeration	1977-1980
1981	June 3	De jure	Household	Self-enumeration	1982-1984
1986	June 3	De jure	Household	Self-enumeration	1987-1989
1991	June 4	De jure	Household	Self-enumeration	1992-1993

¹ Including Upper Canada (Ontario) and Lower Canada (Quebec). Nova Scotia and New Brunswick were enumerated separately.

² The Canadian Census was instituted in 1867 in accordance with the British North America Act; includes the first four provinces in the first official census of Canada: Quebec, Ontario, Nova Scotia and New Brunswick. Manitoba and British Columbia were enumerated separately even if they had joined the Confederation.

³ Inclusion of British Columbia, Manitoba and Prince Edward Island in Canadian censuses.

⁴ Inclusion of the Territories (Alberta, Assiniboia East and West, Saskatchewan and the unorganised territories) in Canadian censuses.

⁵ Inclusion of Alberta and Saskatchewan as provinces; Yukon and the Northwest Territories as territories.

⁶ The prairie provinces had censuses from 1906 to 1946; after 1956, the quinquennial Canadian census was extended to all the provinces and territories.

Sources: Census publications.

In a doctoral thesis on demographic change in Mexico, Marta Mier y Teran⁴ provided an assessment of various censuses. She estimates that census coverage for 1950, 1960 and 1970 was comparable.⁵ According to her research, the 1940 population was probably under estimated by 2.0%, that of 1930 by 0.8% and that of 1920 by 4.0%. It seems likely that the 1910 Census overestimated the population by 1.8%, while the underestimate was 1.3% in 1900 and 5.9% in 1895. These are, of course, only estimates arrived at by a series of complex calculations and hypotheses on the 1970 Census coverage. Her analysis demonstrates that, at least at the national level, the quality of census data is acceptable.

Most Mexican demographers have, however, expressed doubts regarding the quality of the 1980 Census, in which they feel there was over-enumeration. Conversely, they feel that the 1990 figures are too low. There has as yet been no official document issued by INEGI. *According to CONAPO, work is under-way to produce annual estimates from 1970 on. For all these reasons, Mexico does not appear in most of the tables in the U.N. Demographic Yearbook, and in those where it is included, the figures are described as being "of lesser reliability."* Mexican demographers consulted are of the opinion that the population of Mexico in 1990 was probably 84.5 million.

Vital statistics

The "Vital Statistics Registry Regulation" has existed in principle since July 10, 1871. This data-collection system has been implemented gradually across the country since the initial law set up the Civil Registry in 1857. The registry began operations in Veracruz in 1861 but application throughout the country proceeded slowly, and it was some time before relatively complete figures on demographic events (births, deaths and marriages) were produced. The many political upheavals that marked the country's history also had an impact on the smooth operation of such a registry. Vital statistics certificates were introduced in 1935⁶ but the standardization of such documents throughout the country was only achieved in 1983.⁷ The rapid growth of the population in recent decades has made it difficult to maintain an efficient network of registry offices, so that *registration of a birth or death may require a special trip, resulting in many omissions*. (In 1976, there were vital statistics

⁴ Marta Mier y Teran - "Évolution de la population mexicaine à partir des données des recensements de 1895 à 1970." Ph.D. thesis, Faculty of Graduate Studies, University of Montreal, August 1982.

⁵ According to the National Institute of Statistics, Geography and Informatics (INEGI), the 1950 and 1960 censuses underestimated the population by 5.94 % and the 1970 census by 4.63 %.

⁶ Prior to this, the only documents in existence were handwritten "notes" certifying that the event had taken place.

⁷ Canada has not yet achieved standardization in this area. Since collection of vital statistics data is under provincial jurisdiction, birth, death and marriage certificates may bear different information depending on the province in which the event was registered.

registry offices in only 8% of communities with less than 2,500 inhabitants; yet, at the same time, 34% of Mexicans lived in communities with less than 2,500 inhabitants.) From a procedural point of view, Mexico differs little from Canada. Once an event is registered locally, the information is transcribed and forwarded to the Statistics Branch which compiles the documents, draws up statistics, prepares tables and makes these available to the public. The antiquated methods of information processing used to date, along with variations in the quality of services from one state to another and in the training of staff, have resulted in often significant levels of errors, gaps and omissions (occasionally in the order of 20% to 25%).⁸ Added to this, at the practical level, are quite surprising disagreements on the definition of terms (such as live births), despite the fact that these terms are precisely defined by international organizations, along with significant late registration. Notwithstanding these problems, demographic phenomena in the recent period have been reasonably well documented through indirect methods and the competence of Mexican statisticians and international experts. INEGI has made remarkable strides in data collection and processing. Organizations such as the National Population Council (CONAPO), the College of Mexico, the Centre for Population and Health Studies, Mexican universities and joint projects with international bodies such as the Latin-American Centre for Demography (CELADE) have produced studies of good quality.

Some essential precautions must be taken when using vital statistics data, because of the two major weaknesses mentioned: under-registration and late registration.

Under-registration

There are indications that events (births, marriages, deaths) are not uniformly registered and the extent of under-registration varies from year to year and from one administrative unit to another. It is difficult to justify the fact, for example, that two states may have proportions of infant deaths to total deaths varying from 6.8% to 27.5%. In such a situation, the necessary data adjustments give rise to concern since the hypotheses on which they are made are often hard to defend.⁹

Late registration

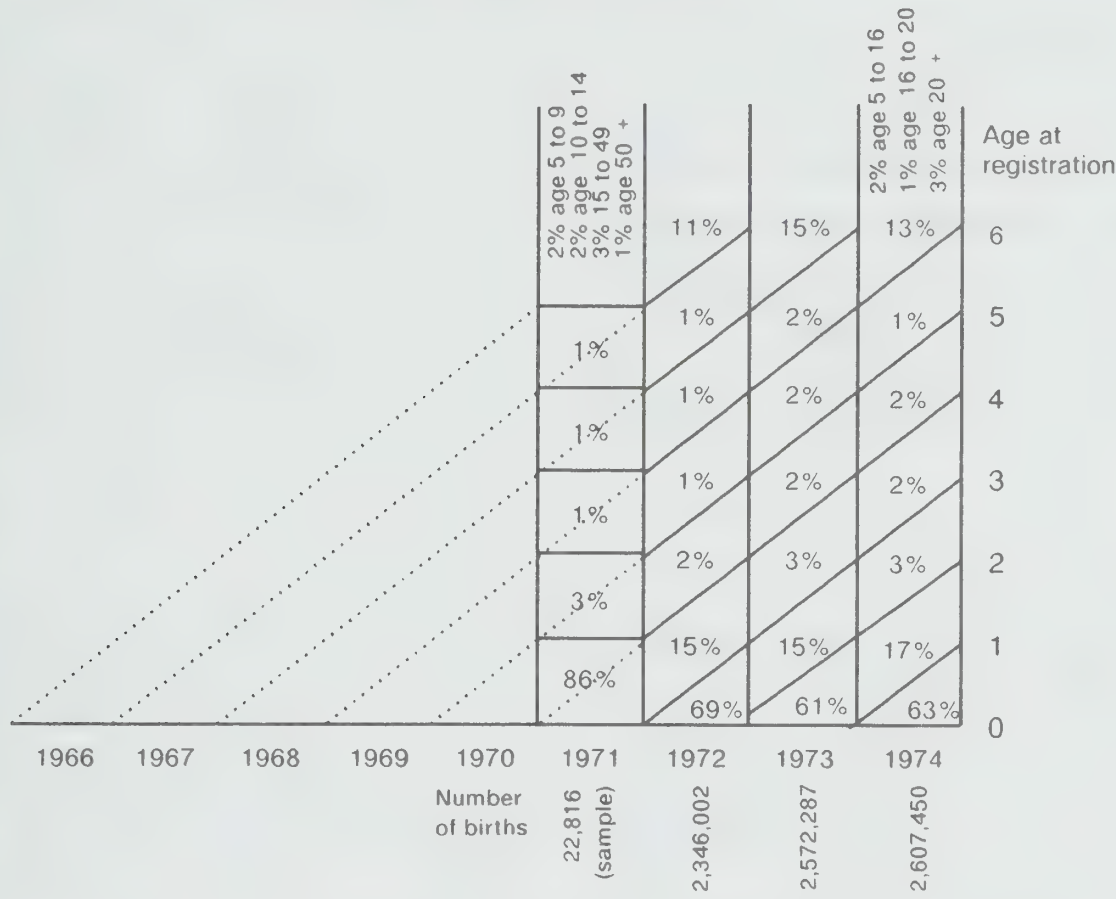
Vital statistics offices are not easily accessible to the entire population. A major proportion of births do not take place in hospital, as in Canada, and therefore must be reported by the mother or father. Moreover, there is no

⁸ Sergio Camposortega Cruz. *Analysis demografico de la mortalidad en Mexico, 1940-1980*. College of Mexico, 1992, p. 29 ff.

⁹ INEGI, *Cuaderno de poblacion*, No. 3, 1992.

Figure 3

Distribution of Registered Births by Cohort and Age at Registration in 1971, 1972, 1973 and 1974



Source: Mier y Terán, Marta (1989). *La Fecundidad en México: 1940-1980, La Fecundidad en México: Cambios y Perspectivas*, Beatriz Figueroa (Ed.), El Colegio de México, p. 57.

powerful incentive such as family allowance to encourage registration. The result is late registration, which, in addition to providing questionable information, makes the annual accounting for each place of residence at the time of the event much more complicated, given the extent of internal migration.

To take just one example, two tables (Tables 2 and 3) and a figure (Figure 3) illustrate the difficulties demographers have in calculating the basic birth and fertility rates. The result is that it is hard to get an idea of current trends, both in terms of variations in intensity and with respect to changes in tempo.

Weaknesses in information collection and the uncertainty of population estimates based on flawed census data mean that our knowledge of Mexican population trends:

Table 2. Registered Live Births by Age at Registration, Mexico, 1986-1989

Year	Age at Registration								
	Total	Less than 1 year old	1	2	3	4	5	6 and over	Unknown
1986	2,579,301	2,040,909	251,618	36,377	28,181	26,478	25,764	168,584	1,390
1987	2,794,390	2,087,752	174,142	79,459	63,489	56,240	53,079	279,008	1,221
1988	2,622,031	2,078,323	124,235	56,970	42,788	37,931	37,911	241,680	2,193
1989	2,620,262	2,063,386	132,907	63,575	45,021	39,612	38,033	236,746	982

Source: I.N.E.G.I. (1992). *Estadísticas Demográficas: Cuaderno de Población No. 3*, Mexico, p. 13-16.

- 1) is often based on simple indices calculated on a multi-year basis (generally three-year averages);
- 2) requires readers to assess estimates proposed by several researchers;
- 3) obliges researchers to compare results obtained from different sources and by different methods;
- 4) is obtained using indirect methods or models;
- 5) often depends on survey results because, despite the smaller size of the sample and its inherent drawbacks, the interview process yields more accurate data than the information coming from Vital Statistics Registry.

Demographic surveys

The less satisfactory the measurement of demographic phenomena provided by censuses and vital statistics, the more common it is to use ad hoc surveys. Listed below are the four best-known surveys carried out in recent years:

- 1) 1976 Mexican Fertility Survey (EMF);
- 2) 1979 National Survey on Birth Control Methods and Prevalence of Use (ENPUMA);
- 3) 1982 National Demographic Survey (END);
- 4) 1987 National Fertility and Health Survey (ENFES).

These studies were mainly intended to track trends in fertility, mortality, nuptiality and contraception, all top priority phenomena for the country's development since the promulgation of the new Population Act in January 1974.

Table 3. Live Births by Year of Birth and Registration Year, Mexico, 1985-1989

Registration Year	Total	Year of Birth							Previous Years	Unknown
		1989	1988	1987	1986	1985	1984	1983	1982	
1989	2,602,262	1,626,556	522,144	84,778	50,929	41,778	38,412	..	254,683	982
1988	2,622,031	...	1,637,966	519,233	74,986	47,569	39,953	37,314	262,817	2,193
1987	2,794,390	...	...	1,612,991	564,868	105,219	72,033	62,187	318,795	1,221
1986	2,579,301	...	...	...	1,611,930	499,957	75,139	50,847	296,322	1,390
1985	2,655,571	...	...	...	...	1,589,344	509,318	83,390	407,736	5,190

Source: I.N.E.G.I. (1992). *Estadísticas Demográficas: Cuaderno de Población No. 3*, Mexico, p. 11.

DEMOGRAPHIC GROWTH

The Mexico described here is the country with its current boundaries and its republican constitution as proclaimed in 1857 and restored in 1867 (the year of Canadian Confederation).

At the time of the first Census in 1895, Mexico had 12,632,427 inhabitants and at the turn of the century 13,607,259, while the 1901 Census in Canada counted 5,371,300 people. In 1990, the population of Mexico was estimated at 84 million¹⁰ while that of Canada was 27.3 million. In a little under a century, Mexico's population has increased 6.2 times and that of Canada 5.1. Seen from this angle, the difference does not seem that great; however, the initial populations were not the same, hence the significant numerical difference today.¹¹ But the real differences show up mainly in the stages and mechanisms of growth.

Growth in Canada over this century has been marked by gradually declining natural increase, interrupted by two relatively brief episodes: a severe drop during the depression of the 1930s and a remarkable surge during the 20 years of the baby-boom, approximately 1945 to 1965. But this growth was also the result of a great wave of international immigration. This immigration was very strong in the early part of the century (between 1900 and 1914) and weaker during the two world wars and the depression era. Since the end of the Second World War, despite its many ups and downs, immigration has nevertheless been responsible for close to a third of the average annual growth.

Growth in Mexico during this period followed a quite different pattern. It was never augmented by any significant immigration, even though, until the Second World War, encouragement was given to European immigration and "return" migration by Mexicans who had moved to the United States at the end of the 19th century and during the civil war. *Growth was thus due almost exclusively to natural increase.* Although growth was slightly weaker up to the Second World War, this was due partly to emigration and military losses and partly to the lower birth rate during the decade of armed combat. It should also be borne in mind that mortality was still quite high during that period. Since 1940, as may be seen in Figure 4, growth has been considerably more rapid than that of either Canada or the United States.

During the decade preceding the last World War, Mexico was at about the midway point of its demographic transition. Even though the death rate had been declining for some time, it was not yet sufficiently differentiated from a birth rate which remained very high. It is only towards the end of the war that we see a clear drop in mortality (see chapter on mortality) shown by unprecedented gains in life expectancy. *Fertility remained at very high levels until around*

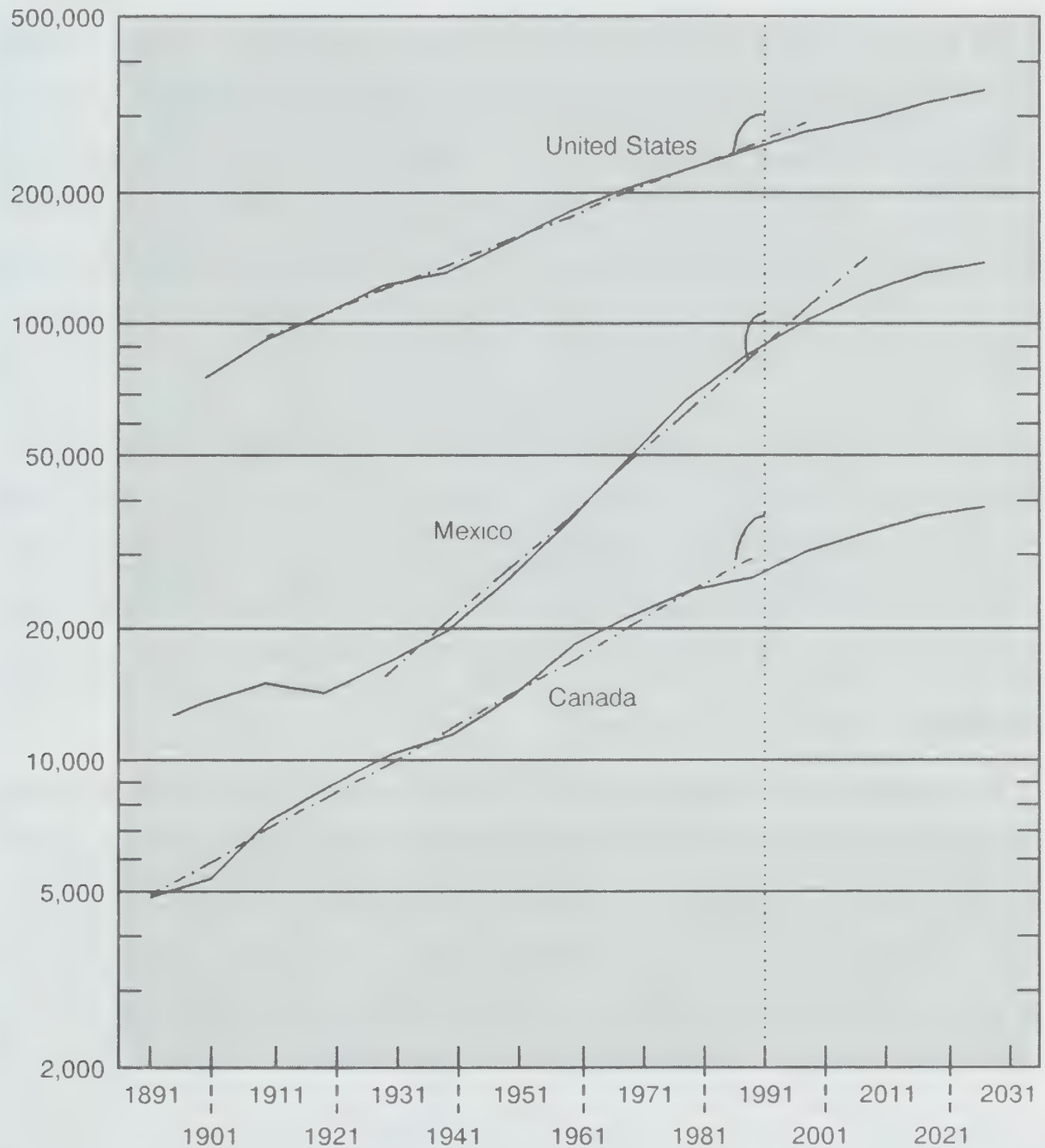
¹⁰ The 1990 Census counted 81,249,645.

¹¹ If Canada's population had increased by 6.2, it would now stand at 33.3 million.

Figure 4

**Population of Mexico, Canada and the United States,
1891 to 2030**

In thousands



Note: The straight lines are adjusted, allowing a comparison between mean slopes.

Sources: Mexico: From 1895 to 1970: Censuses; 1980: Mier y Terán (1982); 1990: Census; from 2000 to 2030: CELADE estimates.

Canada: From 1891 to 1991: Censuses; from 2000 to 2030: Statistics Canada (December 1991). **Population Projections 1990-2011**, Demography Division, Projection Section, p. 11.

United States: From 1900 to 1990: U.S. Census Bureau; from 2000 to 2030: U.S. Census Bureau Projections.

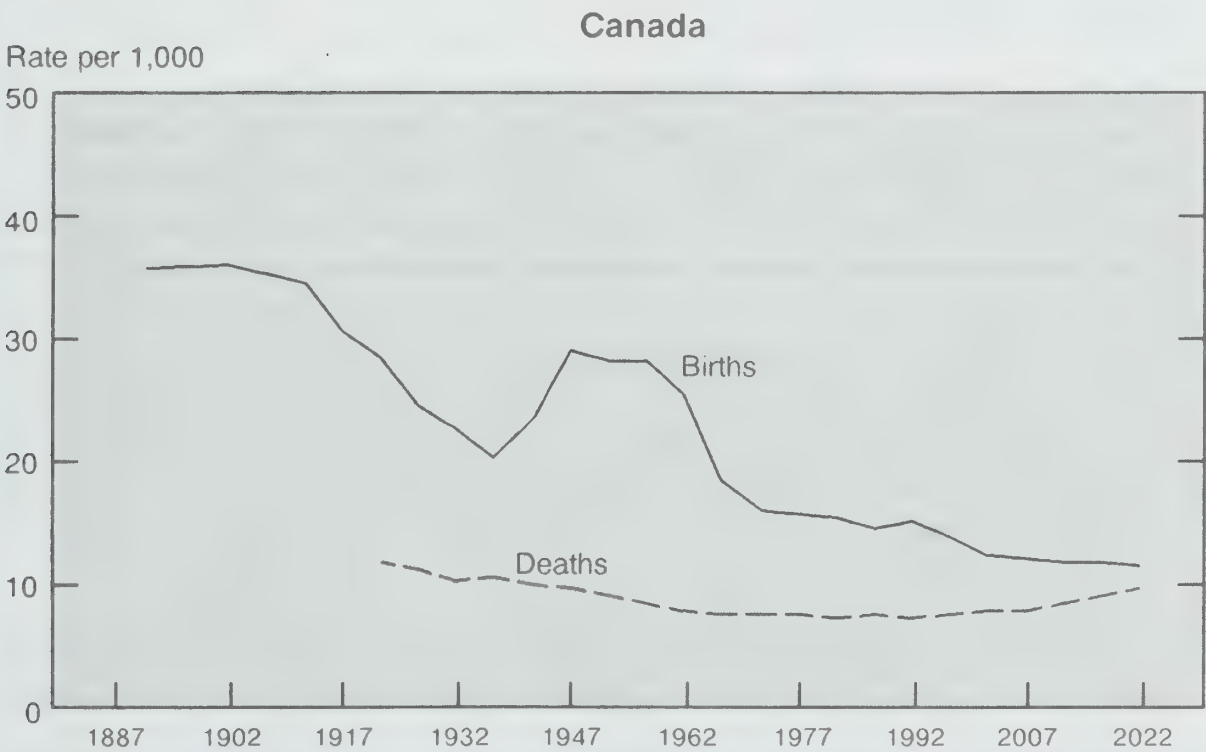
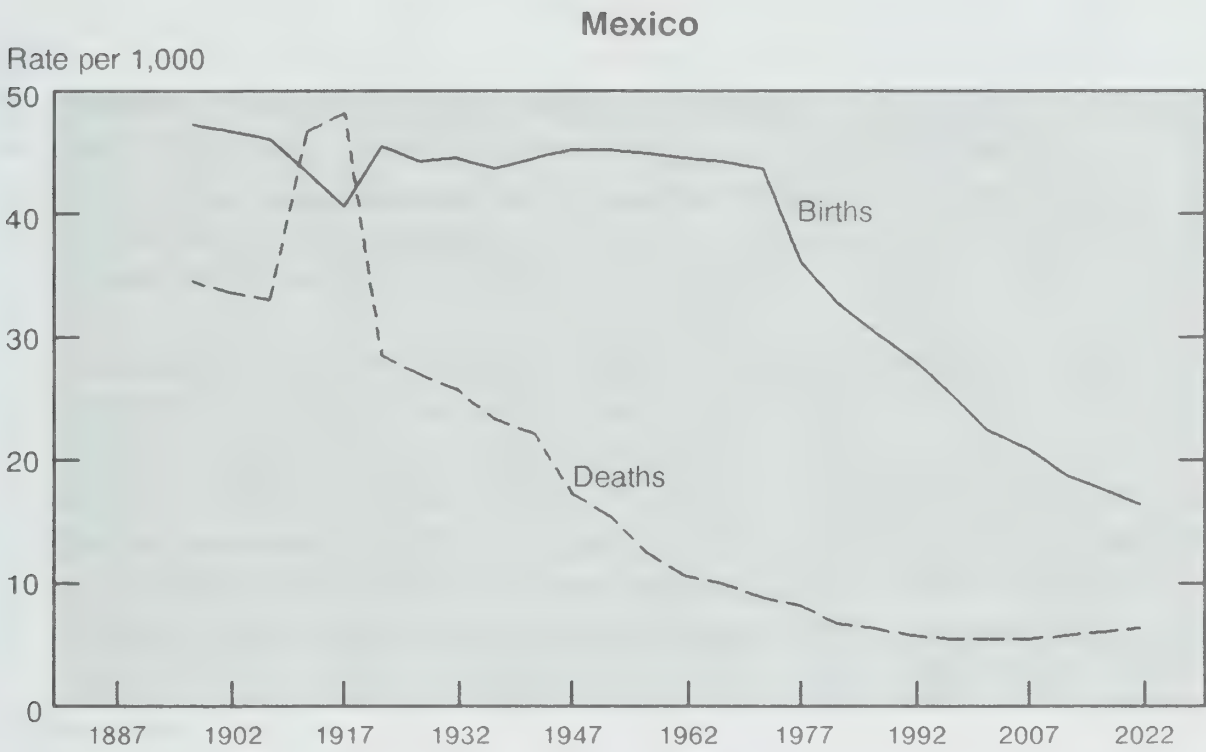
the 1970s, resulting in a significant increase in the number of births over the 30-year period. Maintenance of high birth rates combined with a decrease in the death rate yielded a considerable increase in annual population growth. The annual rate, which had declined slowly to 1.7% a year between 1930 and 1940, rose to 2.7% between 1940 and 1950, then 3.1% between 1950 and 1960 and 3.4% between 1960 and 1970; it then dropped to only 2.8% between 1970 and 1980 and to 2.5 % between 1980 and 1990. These high growth rates were achieved despite a certain level of emigration to the United States, with immigration being negligible. *The result of this trend was a country of 84 million inhabitants in 1990 which had been trying for 20 years to slow its growth but which had such strong momentum in the form of a large female population of childbearing age, that any decrease in the birth rate could only be accomplished slowly,* as any abrupt halt, assuming this is possible, would necessarily result in the short and medium term in severe imbalances in the population age structure (Figure 5).

In other words, to avoid the detrimental effects of very strong growth, the country faces a dilemma. It could either opt for a relatively slow reduction in fertility which would, in the long run, make Mexico a country that, although heavily populated, might reasonably hope that its economy would have time to grow to the point where it could deal with the increase in population, or it could attempt to reduce growth rapidly, with the result that the age structure would be severely destabilized with no guarantee that, in the same time frame, the economy would improve to the point where it could provide jobs for a population already too large for it.

The adaptation of Mexico to the rest of the continent is the North American version of the North-South antagonism; a current worldwide problem caused by imbalances in the rate of demographic and economic development between developing countries and western countries, loosely termed. These relations have major implications for the economic life and policies not only of the countries involved, but also of the other industrialized countries. If a given standard of living is to be maintained, and technical advances incorporated, population growth will bring with it the need for either an increase in economic activity or an increase in emigration. An increase in economic activity inevitably leads, for example, to an increase in capital investment which, if not generated internally, must be imported. For certain segments of the populations involved, these imports may be cause for concern.¹² As well, population growth causes demographic pressure which is quickly felt on the southern border of the U.S. This pressure has been so strong for the past two decades that it has become increasingly difficult to control, particularly since not all economic stakeholders in the U.S. have the same view of the advantages and disadvantages of legal or illegal Mexican immigration, or of injections of capital into the neighbouring

¹² David Rinfeldt and Monica Ortiz de Oppermann: Mexican Immigration, U.S. Investment, and U.S.-Mexican Relations. The Rand Corporation, November 1990, JR1-08, The Urban Institute - UI Report 91-4.

Figure 5
**Birth and Death Rates, Mexico and Canada,
1895-2025**



Source: Table A2.

Table 4. Population (in millions) from Different Scenarios for Mexico, Canada and the United States according to Simple Calculations Using Mean Annual Growth Rates, 1990, 2000, 2010, 2020, 2030

	1990-2000 Period		2000-2010 Period		2010-2020 Period		2020-2030 Period		Population 2030
	Population 1990	Annual Growth Rate (in %)	Population 2000	Annual Growth Rate (in %)	Population 2010	Annual Growth Rate (in %)	Population 2020	Annual Growth Rate (in %)	
Mexico	81.25	2.00	99.04	2.00	120.73	2.00	147.17	2.00	179.40
		2.00	99.04	1.70	117.23	1.50	136.05	1.00	150.28
		1.70	96.17	1.50	111.61	1.20	125.75	1.00	138.90
		1.50	94.29	1.20	106.24	1.00	117.36	1.00	129.63
Canada	26.85	1.10	29.95	1.10	33.42	1.00	36.91	1.00	40.78
United States	250.00	1.10	278.90	1.10	311.15	1.00	343.70	1.00	379.66

Source: Author's calculations.

country. It is thus evident that the study of demographic phenomena has a much broader scope than the simple intellectual satisfaction derived from understanding them, and that thinking in this area is naturally directed towards the future.

Without going into population projections as such, since these will be analyzed later, we may, using some simple calculations, arrive at an approximation of the possible dimensions of the Mexican population according to different horizons. Population growth follows the law of compound interest and thus, based on a census population of 81.5 million in 1990 (which we will not discuss), we may estimate future population size at various dates using a variety of growth rates maintained constant over a decade (Table 4).

These figures, however approximate they may be, demonstrate the desirability of acting rapidly on the growth rate if expansion of the population is the goal. The difference between maintaining 2% growth for 40 years and gradually reducing it to 1% is 50 million people. Given the current economic situation, it is easy to understand why the Mexican government has adopted the population policies it has, to slow growth, the measures implemented since the 1970s and the support received for them from the rest of the North American continent.

Population policies

Since the 19th century, Mexican thinking has always associated economic development with strong population growth. In this, Mexico differs little from other countries in both North and South America. This has led to attempts to attract settlers, as in the United States and Canada, assistance in repatriating Mexicans who emigrated to the U.S., emphasis on the family, land settlement assistance and encouragement for cross-breeding with the Indian populations; these measures have persisted until quite recently. All measures did not meet with the same success, particularly as political instability and the revolutionary period of the 1910 decade failed to create the same favourable climate, for immigration in particular, as prevailed in the rest of North America. The growth rate of 1.2% to 1.5% between 1900 and 1910, was well below that of Canada (2.9%), the United States (1.9%) and even Brazil (2.9%). The few immigrants, even those from Europe, did not receive a particularly warm welcome overall; this period was followed by strong nationalist pressure promoting the concept of Mexico for Mexicans, which resulted in a veritable wave of xenophobia.

From the 1917 constitution forming the United States of Mexico to the Second World War, the various laws on population, including the Family Relations Act and the New Civil Code of 1928, all had basically the same inspiration: integration of indigenous populations, implementation of measures to keep Mexicans in Mexico through land reform and improvement, and benefits for emigres returning to Mexico, especially after the severe laws enacted in the United States at the time of the Great Depression. During this period of strong nationalism, priority went to the family and the rights of women and children, and mixed

marriages were encouraged, while certain eugenic aspects continued to be present. Mexico acted then, like Canada, as a stepping-off place for foreigners seeking to emigrate to the United States, and it proved to be as intolerant to Asians as were its northern neighbours.

The Second World War had some effect on Mexican population policy. The government continued to be motivated by the populationist notions of previous periods and encouraged marriage and fertility, while the Bracero Program, introduced on August 4, 1942, allowed Mexicans to work temporarily in the United States during a period when industrialization was accelerating in their country. The government was gratified at the decline in mortality, which brought a population increase that was still felt to favour economic development. In 1946, planning still included a policy on colonization. The second law on population, passed in December 1947, was clearly populationist in tone. And yet it was at this time that the effect of urban growth, and its driving force, rural migration, began to cause concern. By 1950, it began to be clear that population growth was not synchronized with economic growth: there were discrepancies between population increase and the growth of resources. The rate of increase in average income dropped from 6.1% to 1.4% between 1951 to 1952, which was not compatible with the sustained annual population growth of 3.0% since 1940. Government thinking then turned towards measures to speed up economic development in order to adapt it to demographic growth, the advantages of which had not yet been openly questioned. During the years that followed, the government refrained from taking a position, and this laissez-faire attitude was accepted in silence by both those in favour of population control, who however remained active, and the proponents of economic development strategies.

Around the 1970s, the question of demographic change began to be raised pointedly on the basis of scientific population projections.¹³ "To what extent has the demographic growth of the country stimulated or hindered economic growth?" The government's response came with the passing of *the Population Act in December 1973*. This law was characterized by a change in government attitude from that of previous years, which was marked by cautious indifference, and denoted a radical change in the till-then natalist philosophy. It took the form of a population policy that sought to harmonize population size and structure with the level of economic development in the country. Figures that were hard to contest supported the decision to take energetic action. *Between 1950 and 1970, the population doubled, the urban population increased from 28% to 45%, the population of Mexico City rose from 11% to 17% of the national total and the number of people between 15 and 64 increased by a factor of 2.2.* It had been proved that demographic growth would not slow down of its own momentum while progress continued and the arrival of young people on the job market was outstripping job creation.

¹³ Benitez Zenteno, Raul and Cabrera Acevedo, Gustavo, "Projections de la population de Mexico, 1960-1980", Banco de Mexico S.A. 1966.

Supported by many groups in favour of controlling population growth, the President's Office dared to confront traditionalists, who in any case aroused little sympathy among the general public, by proposing the new law which set the government firmly on the road to lower fertility.

Following the usual statements of universal principles and general goals, the law provided more specific low numerical growth objectives to be attained gradually, based on various horizons and practical measures for achieving them. This will be analyzed in the next chapter, on fertility.

To conclude briefly, in a century of demographic growth, we can recognize ideas and behaviours related as much to the major current of thought of a period as to particular Mexican views (importance of settlement, role of immigration, desire for assimilation, belief in the virtues of fertility, self-regulation of the economy and of demographic growth, etc.) found also in the history of population development in the United States and Canada. In the absence of adequate economic development, the results in Mexico were obviously quite different, as demonstrated by the current situation, and the recent consensus on the need to lower fertility will only yield results in the long term.

BIRTH RATE AND FERTILITY

The natural growth rate of a population is the difference between its crude birth and death rates. The crude birth rate is obviously determined by the proportion of women and their average propensity to give birth (fertility) and the population size. Not only is this growth rate indispensable to calculate projections, but it is also a primary indicator of the reproductive power of a population. We will thus begin with a description of this rate, as we will be referring to it repeatedly in the discussion that follows.

Since the turn of the century we observe that, with very minor fluctuations, the crude birth rate, based on the best available estimates, remained between 40 and 45 per thousand until the mid-1970s (Table 5). The year 1975 clearly seems to mark the beginning of a permanent decline. Despite figures that vary from one author to another due to adjustments to data, there is a clear downward trend.

Fertility

The decrease in the birth rate of a growing population is clearly the result of a decrease in fertility.¹⁴ The onset of this decrease more or less coincided with the change in government policy described in the previous chapter. In addition to calculations using adjusted vital statistics registrations and population

¹⁴ Unless growth is due to heavy immigration by males or the elderly!

Table 5. Estimated Birth Rates from Calculations by Some Authors or Organisms Mexico, 1895-1990 (per 1,000)

Period	Rate	Year	Rate		
1895-1899	47.3	1971	45.3 ^b	40.3 ^c	40.4 ^c
1900-1904	46.5	1972	24.0 ^b	43.2 ^d	
1905-1909	46.0	1973	45.8 ^d		
1910-1914	43.2	1974	45.0 ^b	44.7 ^d	
1915-1919	40.6	1975	40.4 ^a	40.3 ^b	
1920-1924	45.3	1976	39.3 ^e		
1925-1929	44.3	1977	37.6 ^d	37.9 ^f	
1930-1934	44.6	1978	35.7 ^g		
1935-1939	43.5	1979	36.1 ^g		
1940-1944	44.6	1990	34.4 ^g	26.6 ^h	
1945-1949	45.0				
1950-1954	45.1				
1955-1959	44.9				
1960-1964	44.4				
1965-1969	44.3				
1970-1974	43.7 ^a				

^a Secretaría de Programación y Presupuesto. Agenda Estadísticas 1978.

^b Lailson: Estimated births and corrected for the age at the year of registration, corrected denominator for undercoverage.

^c Lailson: Same method with a correction factor for late registrations.

^d D.G.E.: Registered births and population corrected for undercoverage.

^e CONAPO: No indication on the numbers used.

^f ORDORICA: No indication on the corrections made to the data by the G.D.S.

^g INEGI: Registered births and G.D.S. population projections.

^h Estimations by Gómez and Partida.

Sources: From 1895 to 1929: Collver, Andrew (1965). *Birth Rates in Latin America: New Estimates of Historical Trends and Fluctuations*. From 1930 to 1970, *Dinámica de la población de México*, CEED, El Colegio de México, 1970 y Dirección General de Estadística. SIC: *Anuarios Estadísticos*, various years. Figueroa, Beatriz (1989). *La Fecundidad en México*, El Colegio de México.

estimates from 1964 to 1982, other estimates were deduced on the basis of at least six surveys, of which we have already mentioned the four most commonly quoted. In each of the surveys, between 3,000 and 20,482 women aged 15 to 49 were questioned about their fertility.

The data collected provided information by various methods, on birth cohort fertility (longitudinal aspect) and by indirect methods on current fertility trends (age-specific fertility rate and total fertility rate) (Table 6). There is thus a great profusion of data, which mainly allow us to measure the changes that had already occurred, since the speed with which fertility has declined in recent years reduced the interest in figures projected on the basis of trends.

Table 6. Selection of Fertility Rate Estimates for Mexico, by Age, According to Different Authors, Different Methods, Different Sources and for Different Years (per 1,000)

Age Group	Census of Mexico, 1970 ^{a,1}			Mexicain Fertility Surveys ^{a,1}			Mexicain Fertility Surveys ²		
	1955-1959	1960-1964	1965-1969	1962-1964	1965-1969	1970-1974	1972-1976 EMF	1977-1981 END	1982-1986 ENFES
15-19	150	142	107	142	118	102	135	119	96
20-24	305	305	271	308	307	297	268	233	213
25-29	306	325	288	356	329	323	269	224	201
30-34	266	270	252	306	293	271	245	174	151
35-39	177	195	177	208	204	201	180	131	106
40-44	87	89	83	100	102	94	81	59	39
45-49	26	27	22	25	27	21	11	8	5
T.F.R.	6.59	6.76	5.88	7.21	6.90	6.54	5.94	4.74	4.06

^a CELADE calculations using the own children method.

Sources: ¹ Mier y Teran, Marta (1989). *La Fecundidad en México: Cambios y Perspectivas*, Compiladora, Beatriz Figueroa (Pub.), El Colegio de México, p. 43.

² Palma, Yolanda, Javier Suárez (1991). *El Descenso de la Fecundidad en México*, proceedings from the Demographic and Health Surveys World Conference, Washington, p. 1855.

Table 7. Total Fertility Rates for Mexico According to Different Sources and Different Methods of Calculations, 1962-1981

Year	Surveys					
	1970 Census Own Children Method	Vital Statistics	EMF - 1976 Own Children Method	EMF - 1976 Pregnancy History	ENP - 1979 Own Children Method	END - 1982 Live Births History
1962	6.77	6.56	7.12			
1963	6.79	6.54	6.99			
1964	6.85	6.70	7.52			
1965	6.74	6.67	6.67		6.74	
1966	6.40	6.73	7.50		6.18	
1967	6.15	6.61	6.50		6.34	
1968	5.14	6.60	7.17		6.09	
1969	5.54	6.52	6.64		6.78	
1970		6.48	6.82	7.00	6.47	6.79
1971		6.51	6.90	6.54	6.72	6.82
1972		6.60	6.62	6.65	6.67	6.55
1973		6.76	6.42	6.45	6.40	6.42
1974		6.59	5.93	6.00	6.13	6.13
1975		5.96	5.37	6.03	5.94	5.83
1976		5.56	5.40	5.49	5.42	5.50
1977		5.43			5.37	4.92
1978		5.13			4.82	4.54
1979					4.63	4.32
1980						4.30
1981						4.38

Source: Nuñez, Leopoldo (1989). Mexico: Las Encuestas Nacionales en la Estimación de Los Niveles de Fecundidad, *La Fecundidad en México, Cambios y Perspectivas*, Beatriz Figueroa (Ed.), El Colegio de México, p. 104.

Table 7, drawn up by Leopoldo NuEez Fernandez¹⁵ is one of the best summaries of the trend in the total fertility rate (T.F.R.) for various years between 1962 and 1981. Whatever the survey and data-processing method, *it seems clear that 1975 marks the rupture between fertility that was stationary and "natural" for the country and controlled fertility. If we accept the approximate figure of 6.0 for the 1975 T.F.R. and 4.4 for that of 1981, we can see a drop of close to 30% in 7 years.* The term "natural" is used because, until 1975, the T.F.R. varied only slightly from the overall completed fertility rate of birth cohorts, the last of which ended their fertile life around 1970.

¹⁵ In *La Fecundidad en México, cambios y perspectivas*, Beatriz Figueroa Campos (ed.), El Colegio de México, 1989.

With this kind of data, it is difficult not to link the decline in the birth rate and the drop in fertility to population policy introduced during the same period. Although the national family planning program was only implemented on October 28, 1977, its objectives had already been set and measures to limit the number of births had already been introduced.¹⁶

The goal of the national family planning plan was 25 per thousand growth in 1982 and 10 per thousand by the year 2000. Since the growth rate at the time was 32 per thousand and the death rate 8.5 per thousand, the birth rate was actually 40 per thousand. *As a preliminary estimate, achieving growth of 10 per thousand would mean, given a probable death rate of 6 per thousand by the year 2000, that the birth rate would have to fall to about 16 per thousand in 24 years, a decline of approximately 0.7 per thousand per year.* The link between the birth rate and fertility is not a simple one, since we must consider the size of the total population, the number of women and the tempo of births; various calculations have thus led to approximate estimates of age-specific total fertility rates and the crude birth rate until the year 2000. It is interesting to look at what the results of the plan have been to date.

In the past and the early phase of the transition, we mentioned previously that different analyses yielded comparable results: birth rates in the order of 40 to 44 per thousand are compatible with a T.F.R. of about 6.5. According to CONAPO, the birth rate in 1978 was 38 per thousand, congruent with a T.F.R. of 4.94.

1977 to 1982

The first stage in the national population planning program (1977 to 1982) set a target growth rate of 25 per thousand for the end of the period. Given the death rate of 8.1 per thousand, the projected birth rate was 34.4 per thousand. This objective appears to have been attained, since according to figures from the National Population Council, the rate apparently fell to 37.6 per thousand in 1977 and 34.0 per thousand in 1981,¹⁷ resulting in a growth rate of 25 per thousand.

The reduction in fertility in the first phase was to be obtained by setting up effective family planning services and by intensive promotion of contraceptive methods. At the outset, it would appear that, based on data from the 1982 National Demographic Survey, campaigns to limit births achieved positive results. The anticipated number of users of contraceptive methods was 3,450,000

¹⁶ Starting in 1972, public-health institutes launched contraception programs, and the new health code passed in February 1973 authorized the promotion and sale of contraceptives, which until then had been prohibited.

¹⁷ Segundo Informe de Gobierno de Miguel de la Madrid Hurtado, Sector Salud y Seguridad Social, Informacion Estadistica, p. 291. Quoted by M. Cosio in *Politiques de Population au Mexique*, *Politiques de population, études and documents*, Vol. IV, No. 1, June 1989.

in 1982, and the survey determined that there were 4,784,000 – a 139% success rate.¹⁸ But this success was the result of a determined, systematic campaign, particularly in rural areas which even set the number of new users, doctors were to recruit each month.¹⁹ Participants included the Mexican Institute of Social Insurance (IMSS), the Institute of Social Services and Security of the Workers of the State (ISSSTE), and the Secretariat of Health and Aid (SSA). Under the program, 71 rural hospitals and 3,024 clinics were built and between 1974 and 1983, close to 15,000 midwives were trained.

1983 to 1988

The second phase of the planning process (from 1983 to 1988) was obviously the logical continuation of the first, and we may judge from the results whether the measures which led to the success of the first phase were still appropriate for attaining longer-term objectives.

The results of the second phase, in fact, appear to have been less striking than those of the previous one. Whereas the total fertility rate was brought down from 5.9 children per woman (in 1974) to 4.4 (in 1982), a reduction of 25% in five years, the reduction from 1980 to 1986 would have been much smaller if at this date the rate had been 3.8 children per woman,²⁰ or a drop of 14% in 7 years²¹, notwithstanding an increase in the proportion of users of contraceptive methods. The number of users apparently went from 30% of married women of child-bearing age in 1976, according to the EMF, to 53% in 1987 (ENFES). To summarize, according to the surveys, the number of users grew as follows: from 2.4 million in 1977 to 4.8 million in 1982, and 7.5 million in 1988 (of whom 2.4 million were sterilized).

The limits of contraception

An initial sharp drop in the cross-sectional index followed by a more gradual decline raises questions regarding the reproductive behaviour of the women involved in the change, which can only appear in analyses of cohort completed fertility, for the moment difficult to obtain. *It can be seen that, from the 1976 E.M.F. to the 1987 EMFES, female sterilization had become the most common contraceptive method*, rising from 9% of women aged 15 to 49 in couples who practised contraception in 1976 to 36% in 1987²². There are many women who use modern contraceptive methods, but if the target objectives are to be achieved, there must be many more of them, and they must begin using contraception

¹⁸ CONAPO. Programa Nacional de planificación familiar 1983-1988.

¹⁹ Maria Cosío. Politiques de population au Mexique. Op. cit. p. 47.

²⁰ ENFES. Figures quoted by Yolanda Palma Cabrera and Javier Suarez Morales, Family Planning Branch: El Descenso de la Fecundidad en Mexico, op. cit.

²¹ Crude birth rates, according to CONAPO estimates, went from 30.8 per thousand to 25.1 per thousand.

²² Pill, sterilization, hormone injections, IUD, etc. The percentages are official figures from the ENFES.

Table 8. Percentage Reduction in Fertility Rates by Age, for Two Recent Periods and Distribution of Sterilized Women in 1984, Mexico

Age Group	1975-1986 ¹	1980-1990 ²	Distribution of 100 Sterilized Women ³
15-19	24	20	} 49.5
20-24	28	19	
25-29	29	18	
30-34	36	19	
35-39	44	41	
40-44	50	49	
45-49		58	

Sources: ¹ According to the Mexican Fertility Surveys.

² From Vital Statistics.

³ Bronfman, Mario, Elsa Lopez and Rodolfo Tuiran (1989). *Practica Anticonceptiva y Clases Sociales en México: La Experiencia Reciente*, *Politiques de Population*, Études et Documents, El Colegio de México, Volume IV, No. 1.

before they have many children. But during the 1982 to 1987 period, the increase in the number of users of contraceptive methods varied with age: 39% for women 15 to 19, 41% for those 40 to 44, 59% for those 45 to 49, but only 4% to 7% for those in the five-year age groups from 25 to 39,²³ who, it must be noted, were the largest group, percentage-wise, to practice contraception. Moreover, recommendations from the national family planning program suggest sterilization mainly for women who already have at least three children. It is thus easy to see why the downward trend in indices does not correspond exactly to the overall increase in the number of contraception users, since in the population there are a significant number of fertile women who begin using contraception only after high-parity births. In fact, birth rates at all ages declined until 1990 but in varying proportions (Table 8).

We might accordingly summarize the recent reduction in Mexican fertility as an "accelerated march" version of the reduction which occurred more slowly in industrialized countries in the past by the planned use of modern contraceptive methods. The national plan mainly took the form of a powerful campaign in favour of contraception. This is somewhat of a simplification, and contains a degree of exaggeration, since Mier y Teran and Cecilia Rabel discovered that fertility had begun to decline in the State of Mexico and the northern states among women born in the first quarter of the 20th century.²⁴ Experience elsewhere has in fact shown that in general, the initial approach is definitive contraception (ad vitam) by women who have achieved high parities, leading

²³ Secretariat of Health, Family Planning Branch (ENFS, 1987).

²⁴ Personal communication, forthcoming publication.

to a decrease in fertility at older ages and consequently a rejuvenation of birth tempo and a reduction in cross-sectional indices. Following this, however, the reduction in fertility normally slows significantly during the period when people's standards on optimum family size are being revised downward.

Clearly stated, prolonging the effects of the programmed, organized contraception of the last 20 years will call for changes in thinking in the direction of a lower standard for family size. This would involve far-reaching changes in family living conditions and the status of women. Obviously, progress in communications is speeding up changes which formerly took decades to occur in countries that are now highly developed. In this connection, we note such factors as continuing urbanization, greater access to information and increases in the level of education. Other changes, such as the current later age at marriage, also contribute to the process and will no doubt also assist somewhat in reducing fertility.

If in Mexico definitive contraception was so successful and so quickly resulted in a drop in current indices, this was because the female population was ready to adopt it. Proof of this is the fact that, at the time of the 1976 Mexican Fertility Survey, 52% of women exposed to the risk of pregnancy replied that they did not want another child and only 29.3% said they used some form of contraception.²⁵

If the future trend in fertility is to continue, the T.F.R. will likely remain below the cumulative fertility of the cohorts involved for a number of years to come. Given the number of women of child-bearing age, the decrease in fertility will no doubt not be clearly apparent in the decrease in the birth rate, which might not decrease as much as hoped. There seems to be some evidence of this. The target birth rate in 1986 was 27 per thousand, while the estimated rate for that year was 30 or 32 per thousand.²⁶ *It is thus possible that the growth objective forecast for the year 2000 will be hard to attain.* And yet, the official 1990 population count, which was lower than anticipated, came as a surprise, opposing surveyors and census-takers. It is unlikely that either of them made a significant error. The cause of the surprise is more likely a considerable upward adjustment in previous censuses (particularly that of 1980), which were recognized to have under-enumerated. Using a base that was over-estimated by the adjustment would thus have resulted in over-estimates for the years prior to the 1990 Census, the quality of which has not yet been officially critiqued by INEGI.²⁷ A consensus nevertheless seems to be forming which estimates the population of Mexico at 84.5 million at the time of the census (interim figures proposed by CELADE).²⁸

²⁵ According to Yolanda Palma Cabrera and Javier Suarez Morales, Family Planning Branch - EMF 1976. in *Demographic and Health Surveys World Conference, 1991, Washington, D.C.* (tables 10 and 11).

²⁶ See projections of births and fertility further on.

²⁷ It should be noted that the birth rates that use estimated populations as a denominator are probably too low, which would further augment the lack of correspondence between indicators.

²⁸ The World Bank proposed 86.3 millions for 1990. This value is considered too large by mexican demographers.

The current situation

The recent monitoring of fertility trends was undertaken only to evaluate the progress in the decline of growth of Mexico's population. If we go back to the time when these analyses were made, i.e. in 1980, the immediate natality future was the 20 years from 1980 to the year 2000. These estimates are facilitated to a certain extent by the fact that the women in child-bearing age during this period are now already born. Obviously, some of them will enter their fertile period while others will leave it.

Carmen Arretz²⁹ provides a good discussion, based on a thorough study of the behaviour of birth cohorts in the recent past (1950-1983). She notes that the rate of growth in the number of births increased slightly from 1950 to 1965, declined at the rate of 2.5% a year during the next five years, and then, beginning in 1970, dropped to almost nil in the years prior to 1980 (from 1980 to 1990 the number of births remained more or less stationary). Since the majority of births (64% to 70%) are to women between 15 and 30, the more their share of the group of women of child-bearing age increases, the more the number of births should increase. However, the proportion of young women increased considerably, from 56% in 1950 to over 60% in 1983, while the number of births declined considerably. Cumulative fertility at age 30, which remained constant at about 3.7 children per 1,000 women until around the 1970s, has dropped steadily and was only about 2.7 around 1983. The relative share of fertility rates of women under 30, which was constant until around 1970 (+ 54%), increased to 58.5% in 1983. The combination of these three phenomena led first to a rapid increase in the number of births to women under 30 until around 1970 and then to a slower rate of increase until 1983.

The stabilization seen in the number of births will have a medium-term effect of reducing the proportion of women aged 15 to 30 in the 15 to 49 age group and, assuming a decrease in their fertility, a reduction in the number of births in the future. This decrease in births combined with the increase in population should bring a substantial reduction in the birth rate. This, generally speaking, is the logic which seems to have guided the formulation of the government's future growth objectives.

Since the first projections by Benitez,³⁰ many others have been made by various authors, and we will discuss only a few of these.

Frejka in 1975³¹ proposed five scenarios based on the year, a net reproduction rate would reach unity and then remain constant. His Hypothesis III forecast a T.F.R. of 6.00 for the 1970 to 1975 period and a replacement level between 2000 and 2005 which would lead, based on other hypotheses, to a Mexican

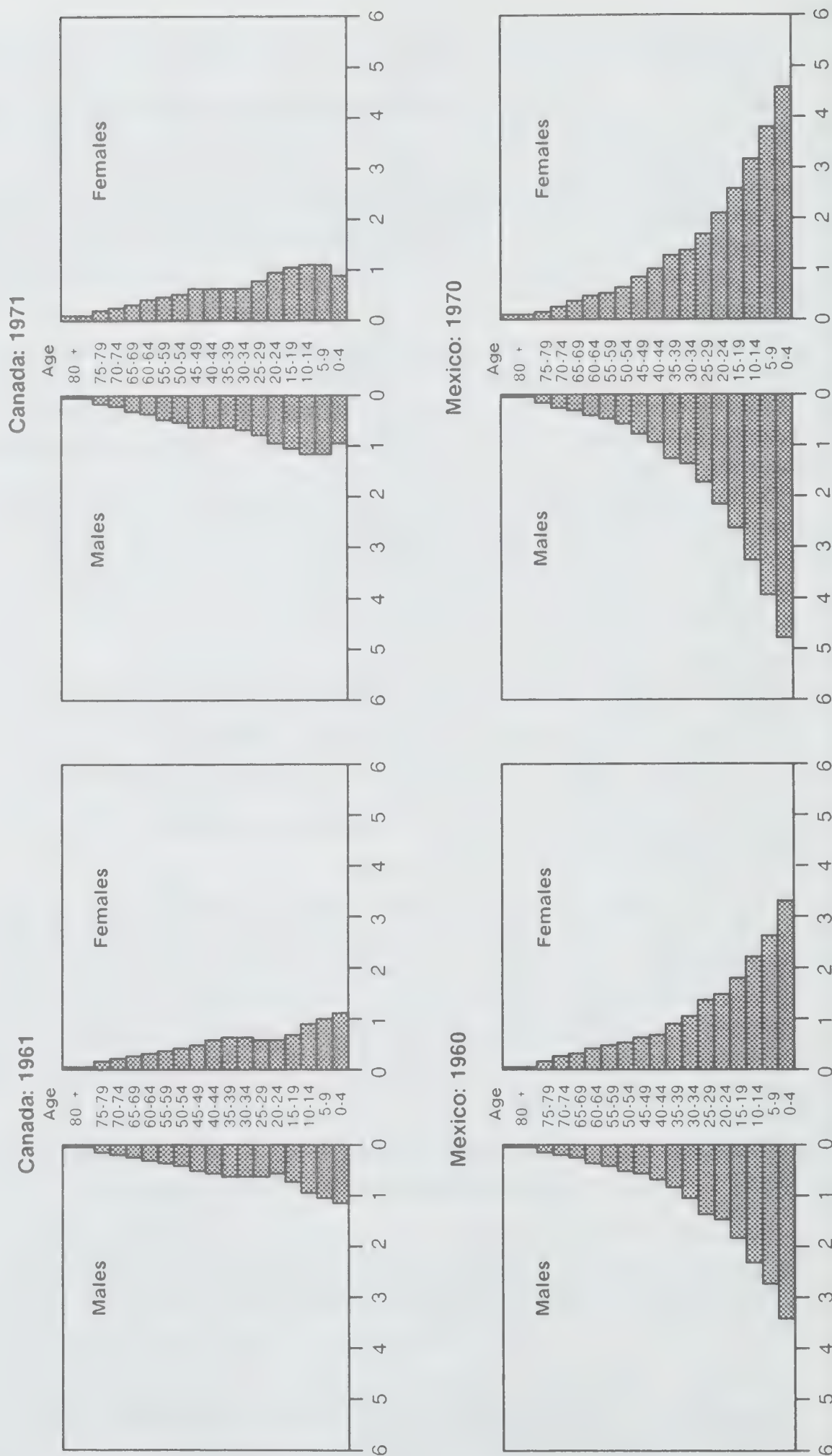
²⁹ Carmen Arretz. "La fécondité au Mexique", in *La fecundidad en Mexico*, op. cit.

³⁰ Benitez Benteno, Cabrera Aceredo, G., op. cit.

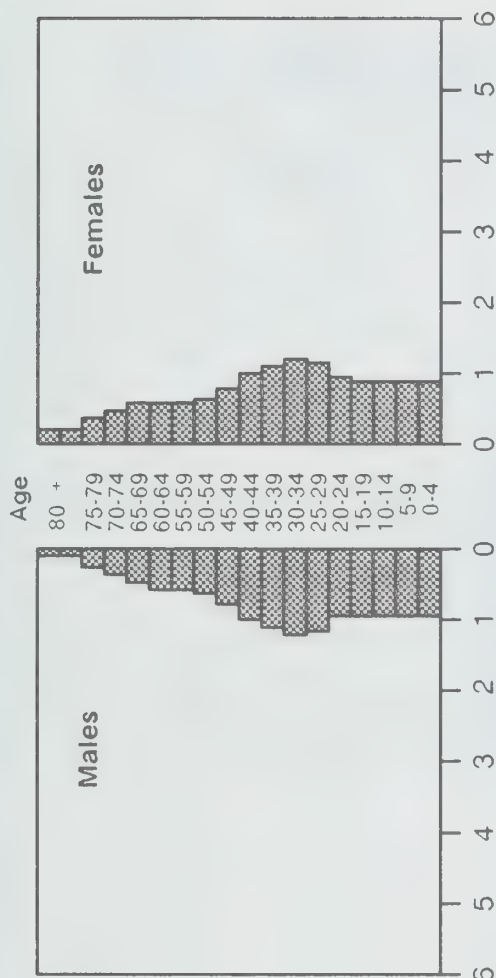
³¹ Mexico (perspectivas por países). The Population Council 1975, pp. 11-15.

Figure 6A

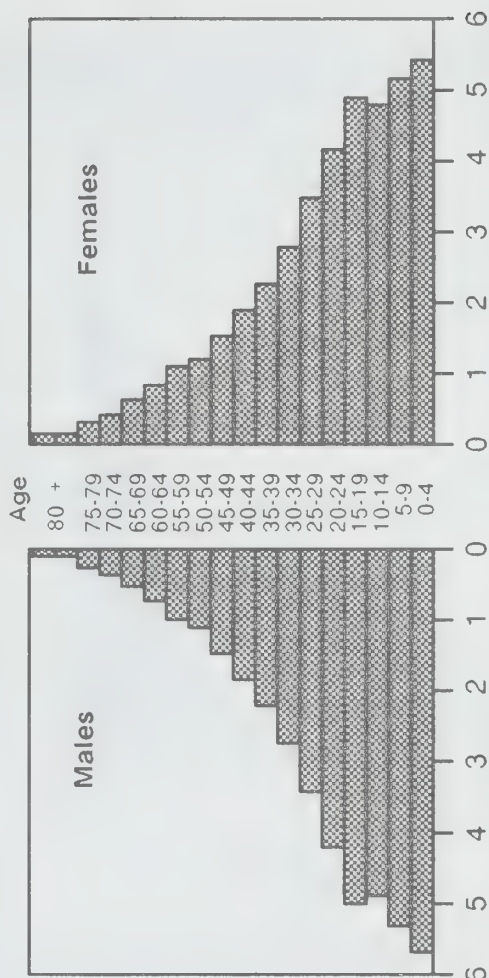
Age Pyramids of the Canadian Population and the Mexican Population at Different Censuses (in millions)



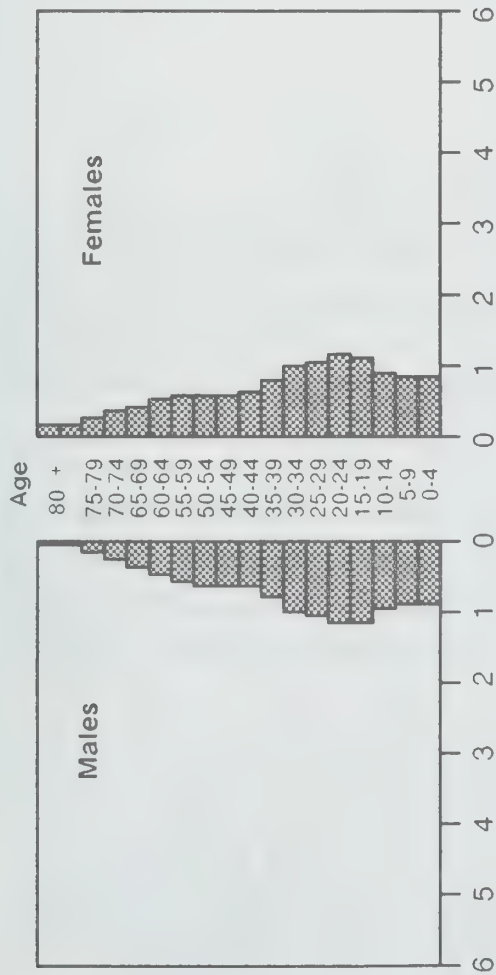
Canada: 1991



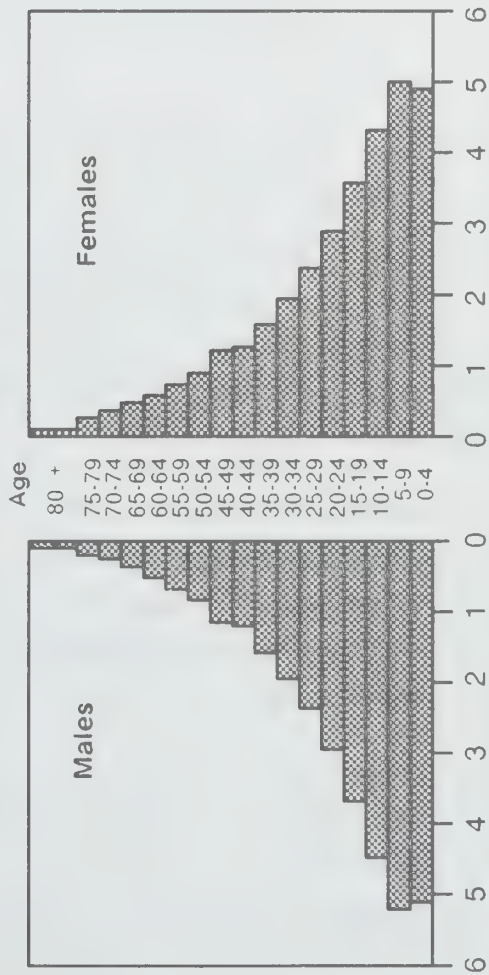
Mexico: 1990



Canada: 1981



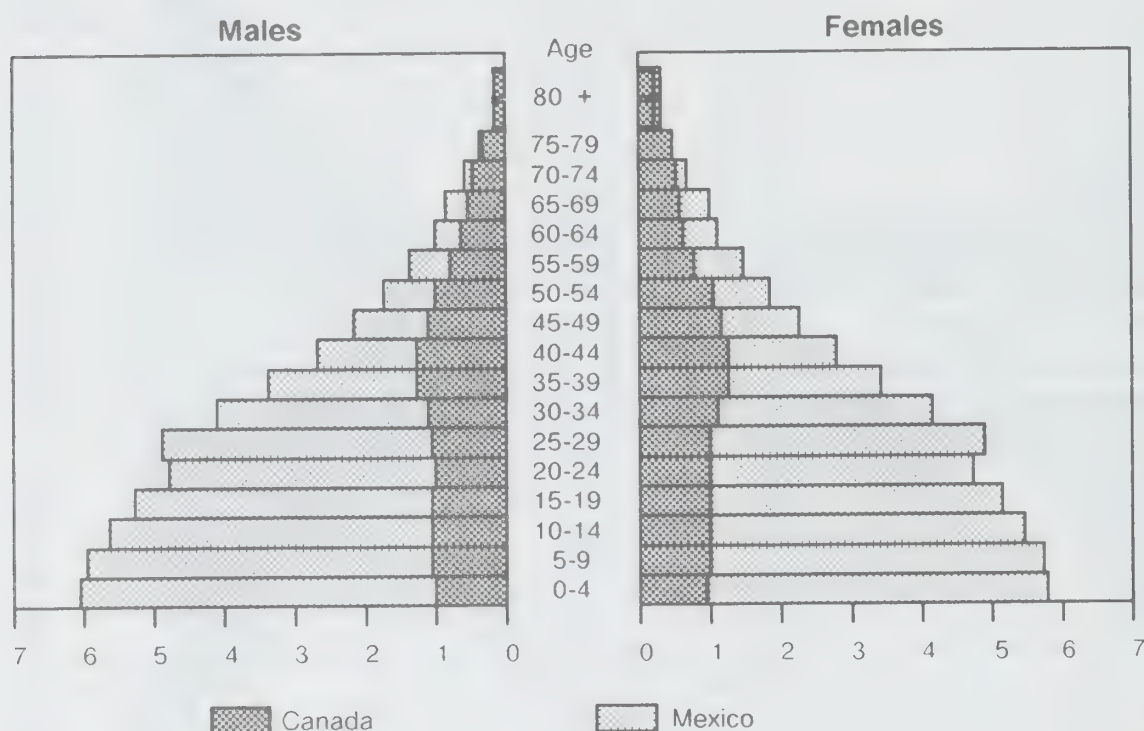
Mexico: 1980



Sources: Canada: Censuses of 1961, 1971, 1981, 1991.
Mexico: Censuses of 1960, 1970, 1980, 1990.

Figure 6B

**Age Pyramids of the Canadian Population for the Year 2001
and the Mexican Population for the Year 2000 (in millions)**



Sources: Canada: Statistics Canada (December 1991).
Demographic Projections 1990-2011,
 Demography Division, Projection Section.
 Mexico: CELADE (1993). *América Latina, Proyecciones de Población 1950-2025*,
 Boletín Demográfico, No. 51, Chile, p. 105.

population of 108.7 million by the year 2000. This gradual decline in fertility would give a T.F.R. of 4.08 for the period 1985 to 1990. As we saw, however, the measured T.F.R. was 4.38 in 1981. Although we know very little about the other hypotheses, this model appears interesting for the moment, although a linear trend in either the net or crude reproduction rate has never been observed over long periods.

The United Nations, in the 1973 *World Population Prospect*, proposed hypotheses that used a logistic function to project crude reproduction rates. The results using the lowest hypothesis yielded a crude reproduction rate of 2.2 for the period 1990 to 1995 and a population of 94 million in 1990. These two figures are much higher than those observed.

But the projections which arouse the most interest are those of CONAPO (the body responsible for planning in the country), since they attempt to mark out the progress towards the growth objective set for the year 2000. Thus they do not formulate a hypothesis on the possible fertility trend, since they deduce it based on a reduction in the rate of growth (tables 9 and 10). However, along

Table 9. Variations in the Annual Growth Rates (in %) of the Mexican Population According to Three Hypotheses of the National Population Council (1970-2000)

Year	Hypothesis		
	I	II	III
1970	3.5	3.5	3.5
1975	3.3	3.3	3.3
1976	3.2	3.2	3.2
1977	3.2	3.2	3.2
1978	3.0	3.0	3.0
1979	2.9	2.9	2.9
1980	2.7	2.7	2.7
1981	2.6	2.6	2.6
1982	2.5	2.5	2.5
1985	2.2	2.3	2.4
1990	1.7	2.0	2.2
1995	1.3	1.6	2.1
2000	1.0	1.5	2.0

Source: Consejo Nacional de Población, 1978, Yearbook of Mexico.

Table 10. Gross Reproduction Rates and Projected Population According to Three Hypothetical Annual Population Growth Rates, Mexico¹

Year	Hypothesis					
	I		II		III	
	G.R.R.	Population	G.R.R.	Population	G.R.R.	Population
1970	3.21		3.21		3.21	
1975	3.03		3.03		3.03	
1980	2.53	69,902	2.53	69,902	2.53	69,902
1985	1.94	79,242	2.00	79,265	2.05	79,358
1990	1.45	87,489	1.63	88,203	1.80	88,853
1995	1.12	94,464	1.33	96,527	1.61	98,737
2000	0.87	100,249	1.18	104,397	1.53	109,184

¹ Population in thousands.

Source: Consejo Nacional de Población, *Resultados de Las Proyecciones de la Población de México*, (no date).

with the 10 per thousand figure set, they also propose 15 and 20 per thousand based on the 1970 figure of 35 per thousand. Taking into account hypotheses on the change in the tempo of fertility, these constraints lead to a crude reproduction rate of either 0.87, 1.18 or 1.53 in 2000 and consequently to a population ranging from 100.25 million to 109.18 million. We can only speculate on the probability of any of these three hypotheses being realized, focusing mainly on the first, since this is the objective of the government. *A crude rate of 0.87 means a T.F.R. of about 1.78, or practically the level of fertility in Canada in 1990. The probabilities of observing changes at such a pace are doubtful, since this would be one of the fastest drops in fertility ever seen. Although it is not impossible,³² a number of indicators lead us to believe that the probabilities are slight.*

It is well known that:

- 1) The population, despite significant migration, is still mainly rural. Historically, such populations have maintained high fertility rates longer than urban populations (due to tradition, reduced access to contraceptives, social constraints, etc.);
- 2) As a corollary, the populations most inclined to reduce their fertility are populations with a high level of education. However, despite remarkable progress, Mexico remains a country where the level of education is still low;³³
- 3) Observations of annual growth by the difference between birth and death rates lead us to believe that the Mexican population is not changing at a rate which will lead it to the 10 per thousand level forecast for the year 2000, even taking into account the uncertainty regarding the data used.

Consequences of decreased growth

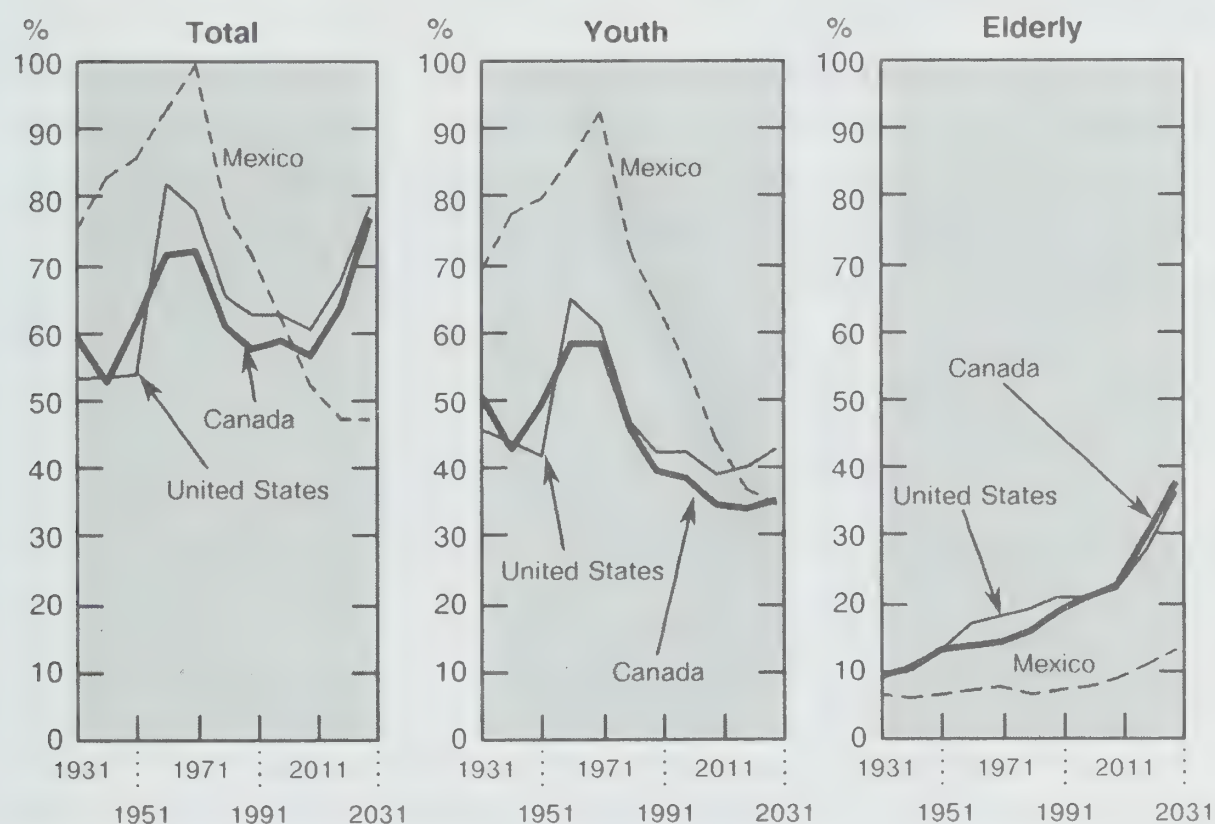
Much has been said to date about short-term projected fertility and overall population figures. Population projections serve another, equally important purpose, which is to predict changes in population structure, often simply described as aging. Without adopting an economic point of view, the fact remains that the simple dependency ratios calculated by demographers have always corresponded to a certain extent to the comfort status of societies and provided an indication of the difficulties or improvements which could be expected based on projections. It is particularly important not to consider the demographic dependency ratio independently of anticipated levels of well-being and the potential for economic growth which is less and less dependent on them, insofar as the economies of foreign countries interfere with the economy of the country itself. Canada thus had an impressive total dependency ratio of 72% during the 1960s and 70s, but that was at a time when the country's economy

³² Guadeloupe reduced its fertility between 1965 and 1980 at a rate that almost all specialists judged impossible when it was proposed as a hypothesis.

³³ Large disparities exist between the different segments of population. An important part of the population only has rudimentary education.

Figure 7

Dependency Ratio for Canada, the United States and Mexico, 1931 to 2030



Source: Table A3.

was extremely prosperous because of Canada's world trade advantages. The Mexican rate is in more or less the same order of magnitude, but the Mexican economy is in a much more precarious situation than that of Canada in the 1960s. The total dependency ratio in Canada by the year 2000 will be little higher than the current figure (48%), and yet the state of the economy leads many to fear a decline in the standard of living in the coming years (Figure 7). *For Mexico, it seems certain that by the year 2000 the total dependency ratio will have decreased significantly (from 71.6% to 62.1%)* (Tables A3 in the Appendix); however, to simplify the situation as much as possible, this implies that, all other things being equal, the number of adults (which is expected to increase by 29%) would have a productivity level equal to that of today. There will be 13 million more of them, which will call for a considerable job creation effort given the current situation of the North American or even world economy. The demand created by young people will not grow due to the increase in their numbers (there will be barely 2 million more of them), any more than that created by older workers (not quite 1 million more). The Mexican economy is thus facing a very challenging demographic situation.

This situation is not confined to the future. It already exists and even has a history which partly explains the phenomenon of Mexican emigration which will be discussed later.

Conclusion

Mexico has been experiencing an irrevocable decline in fertility since the early 1970s. In line with the universal model of demographic transition, this does not mean that growth has started to decline. The momentum created by women of child-bearing age is such that, even with lower fertility, the population will increase. It remains to be determined when the growth of the country will level out. This depends (apart from migratory phenomena) on the speed with which fertility continues to decline. This is an extremely difficult question, since the answer brings into play, strictly within the limits of the field of demography, the decrease in age-specific fertility rates and the relative weight of each in the intensity of total fertility. We may be misled for many years by changes in tempo, which in the medium and long term result in a smaller reduction in the number of births than predicted by current indices. We may also be concerned about the consequences of a rapid decline in fertility and mortality, which results in a chain of imbalances in the age structure. *It will be recalled that it is not so much the changes in structure that have detrimental effects, but how quickly they occur, since the adaptation time is too short.*

Canada is beginning to experience some of the consequences of rapid aging, predictions of which went unnoticed by many when after the 1960s, fertility which had risen between 1945 and 1965, again returned to the levels to which it had been heading throughout the century. However, the recent drop in fertility in Canada after the baby boom is vastly smaller than that which will eventually be seen in Mexico, even if the plan objectives were only partially attained, that is, if fertility in the year 2000 were to be at basically the same level as that in Canada in the 1990s. It would appear that, at least as it has been stated, government policy has not been influenced by the calculations made by J.B. Pichat³⁴ who in 1970 studied, following the goal expressed by Colonel Draper, the effects of zero growth by the year 2000. These calculations showed the tremendous economic and social difficulties faced by a population in which the numerical relations between age groups tend to fluctuate at a very rapid rate to maintain zero growth.

³⁴ J. Bourgeois Pichat and Taleb Sid Ahmed, "Un taux d'accroissement nul pour les pays en voie de développement en l'an 2000. Rêve ou réalité", *Population* 1970, No. 5.

MORTALITY

No matter how sophisticated the index developed to measure the mortality level of a country, we nevertheless always end up calculating rates. These rates are the ratio between a numerator representing the number of deaths and a denominator representing the population. Given our comments on sources of data, these two figures are often questionable and require adjustments before they can be used to obtain a reliable measurement. For population estimates, smoothing procedures allow us to use imperfect census data to obtain age distributions that are closer to reality than the census results. These distributions are often distorted by those who are unaware of their true age and tend to overstate or understate it by rounding it to the nearest round figure. For deaths, a number of methods may also be used to adjust statistics, for example by using regularity indices, comparison of survey data with vital statistics, checking the existence of epidemics before accepting surprising changes in figures, not to mention methods that are heavily dependent on statistics and thus run the risk of substituting them completely for data actually collected. Once the life table has been calculated using the most plausible rates, it can be compared with a standard table to determine the likelihood of results and assess the validity of variances.

The question of emigration will be dealt with further on, but the reader should bear in mind its effect on the measurement of mortality. Since emigration has been extensive and selective, particularly in recent times, anomalies may appear in measurements and misleadingly indicate intrinsic changes in the intensity of phenomena.

Trends in mortality

Many authors have proposed tracing trends in mortality by calculating life expectancies for certain years or periods using available material, adjusted by various methods. It will be seen from Table 11 that there is a relatively satisfactory correlation of values obtained by various authors for the recent period, which should inspire confidence in their true levels. Since we do not have all tables, and all series are not available up until 1991, we will mainly use the work of Gomez de Leon, which is the most recent, that of Camposortega which provides detailed tables up to 1980, and figures from CELADE, to make a few approximate comparisons.

The rapid drop in mortality in Mexico (Figure 8) is one of the characteristics of the demographic transition of developing countries, particularly those which embarked upon the process early in this century, and even more so of those where it began after the Second World War. Considerable progress was made at that time in combatting infectious diseases and the effects of poor sanitary conditions and malnutrition. *In the 60 years from 1930 to 1990, male life expectancy in Mexico increased by 31.4 years and female life expectancy by 36.1 years, according*

Table 11. Life Expectancy at Birth Evaluated by Different Authors and from Different Sources, Mexico, 1930-1990

Year	1	2	3	4	5	6	7
Males							
1930	36.08	34.93					
1940	40.39	40.27		38.79	39.12	37.67	39.46
1950	48.09	48.40		46.15	46.74	46.16	49.12
1950-1955			49.20				
1955-1960			53.85				
1960	57.61	55.14		54.92	55.99	56.38	57.08
1960-1965			57.01				
1965-1970			58.51				
1970	60.05	57.87		57.73	59.01	58.39	59.51
1970-1975			60.41				
1975-1980			62.62				
1975	62.75	60.27					
1980		61.91		61.53	63.16	64.52 ^a	
1980-1985			64.24				
1990		66.35					
Females							
1930	37.49	37.45					
1940	42.50	43.24		41.22	41.65	39.84	41.46
1950	51.04	52.49		49.83	50.68	49.00	52.07
1950-1955			52.37				
1955-1960			57.07				
1960	60.32	59.45		58.34	59.73	56.38	57.08
1960-1965			60.30				
1965-1970			62.21				
1970	63.95	63.21		61.29	63.06	62.32	63.63
1970-1975			64.94				
1975-1980			68.24				
1975	66.57	66.60					
1980		69.72		66.77	69.39	70.99 ^a	
1980-1985			70.64				
1990		73.51					

^a Observed data (INEGI).

Sources: ¹ Benitez, Raül, Gustavo Cabrera (1973). *Tablas Abreviadas de Mortalidad de la Población de México, 1930, 1940, 1950, 1960*, El Colegio de México.

² Gómez, José, Virgilio Partida (1993). *Sesenta Años de Mortalidad en México, Una Reconstrucción Demográfica, 1930-1990*, CEPS.

³ CELADE (1989). *Latin America Life Tables*, Volume XXII, No. 44, Santiago de Chile.

⁴ 80‰ according to Camposortega.

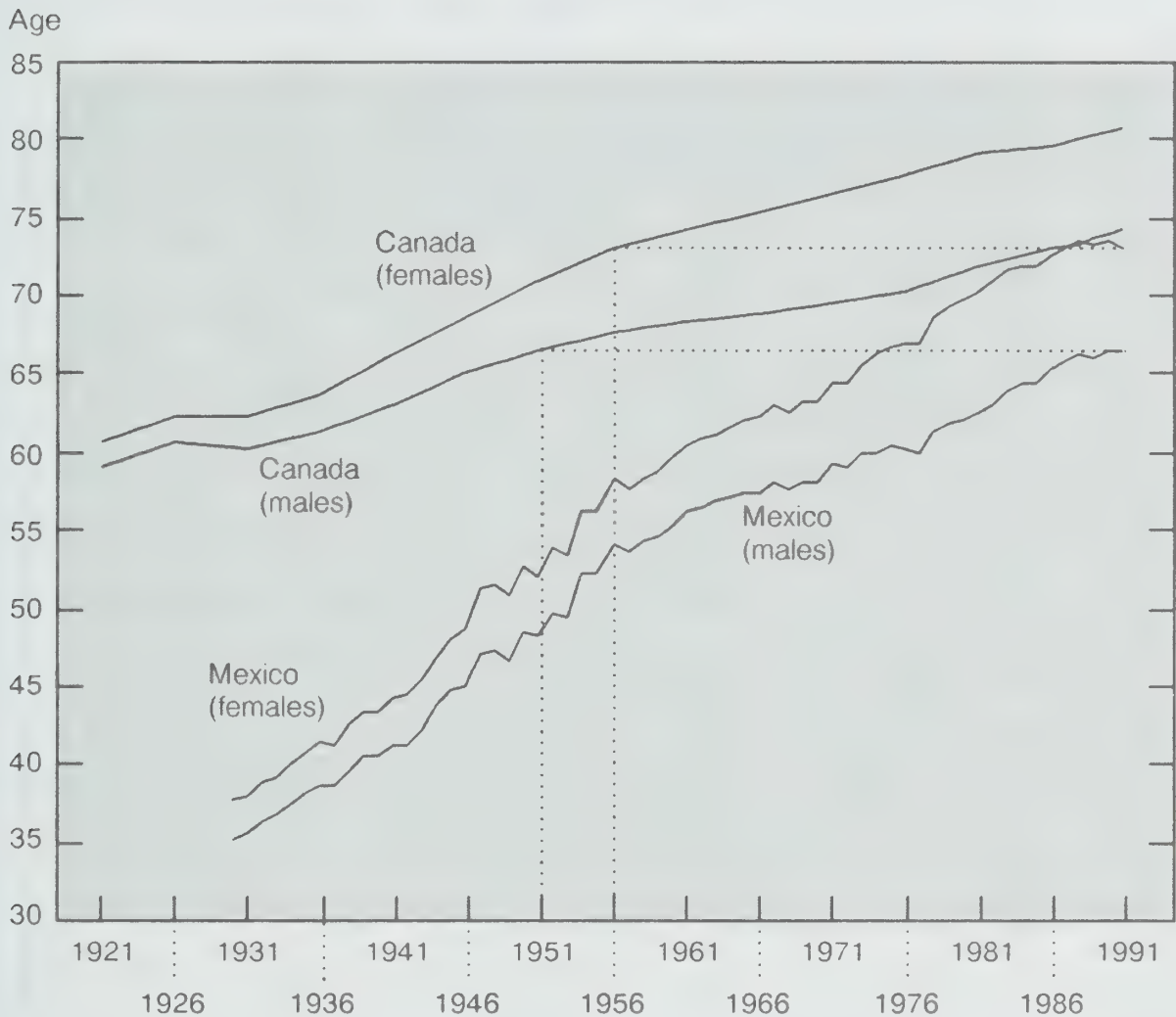
⁵ Camposortega, Sergio (1992). *Análisis Demográfico de la Mortalidad en México, 1940-1980*, El Colegio de México.

⁶ Arriaga, E. (1968). *New Life Tables for Latin American Population in the XIX and XX Century*, Berkeley, University of California Press. Rowe (1979). *Country Demographic Profiles, Mexico*, U.S. Bureau of Census, Washington, D.C.

⁷ Corona, R. (1981). *La Mortalidad en México*, Instituto de Investigaciones Sociales de la Universidad Nacional Autónoma de México.

Figure 8

Life Expectancy at Birth by Sex, Canada and Mexico, 1921 to 1991



Sources: Mexico: From 1930 to 1990: Gómez, José and Virgilio Partida (1993). *Sesenta Años de Mortalidad en México: Una Reconstrucción Demográfica 1930-1990*, C.E.P.S., p. 43.
 Canada: From 1921 to 1981: Nagnur, Dhruva (1986). *Longevity and Historical Life Tables (Abridged) 1921-1981*, Catalogue No. 89-506;
 from 1986 to 1991: Author's calculations.

to time series calculated by Jose Luis Gomez (Column 2 of Table 11).³⁵ Canadian statistics have not seen such a significant gain since they began in 1921. Gains in the 70-year period were only 15.1 years for men and a little under 20 years for women. This is because Canada was already in the final phase of its demographic transition, which in any case was of a different type, and mortality had already declined significantly since the 18th century.

³⁵ This is also one of the most striking increases recorded anywhere in the world.

Based on Table 12, for both men and women, the decade in which the largest gains were made in Mexico was the 1940s (8.1 years for men and 9.3 years for women in 10 years), while the least gains were made during the 1960s (2.7 years for men and 3.8 years for women).

The method used by analysts is that described by Pollard,³⁶ which provides a measurement of gains in life expectancy over a certain period of time in a given age interval; this shows the extent of gains attributable to efforts to combat infant and child mortality (Table 12).

Infant mortality

The infant mortality rate is the ratio between the number of deaths among children under a year old and the number of births in their birth cohort. In practice, it must be borne in mind that both categories of events may be affected by under-registration. The fertility surveys mentioned in the previous chapter also give us estimates of infant mortality, since the women interviewed gave information on live births and on the deaths of children before their first birthday. The results obtained from the two sources differ rather significantly, as shown in Table A4 (in Appendix), and it is not easy to determine which is the true case, since each method of calculation has its advantages and disadvantages. With vital statistics, taking omissions into account, we have a total count of the various events. With survey data, although the calculations involve a smaller sample, we may nevertheless assume that the quality of information is better. However, the constant lower rates observed from vital statistics data are certainly due to poor registration of births and deaths. If we rely on estimates made from survey data, we must conclude that deaths among children under a year old are subject to significantly more under-registration than births.

Whatever option we choose, the time series confirm the considerable progress mentioned above, which follows the classic trend for mortality in underdeveloped countries. Comparison with the trend in infant mortality in Canada since 1921 nevertheless shows, by the distance between the curves, how much farther Mexico has to go, although the country may well cover this ground more quickly than Canada has, given the slowly acquired but now available knowledge (Figure 9).

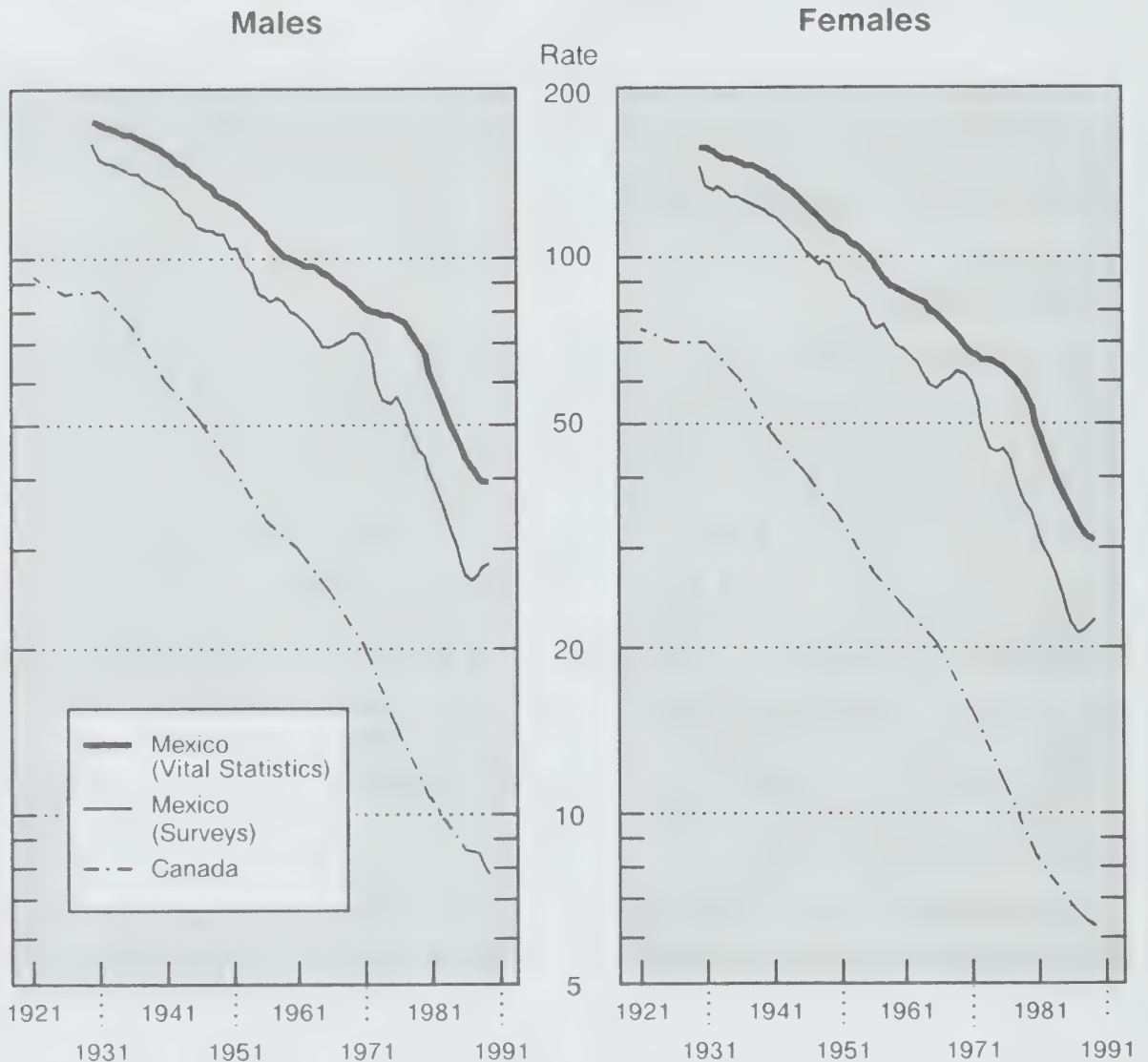
Child mortality

Child mortality is certainly an area which, historically following post-neonatal infant mortality, has improved the most with progress in hygiene and health conditions, control of infectious diseases and advances in nutrition. In 60 years, Mexico *has made quite remarkable progress in this area as well. For both sexes*

³⁶ Pollard, J.H. The expectation of life and its relationship to mortality, *Journal of the Institute of Actuaries*, 1982, No. 109, p. 225-240.

Figure 9

Probability of Dying Before Age One, Canada and Mexico, 1921-1990



Sources: Mexico: Table A4.
 Canada: From 1921 to 1981: Nagnur, Dhruva (1986). **Longevity and Historical Life Tables (Abridged) 1921-1981**, Catalogue No. 89-506; 1990: Author's calculations.

combined, the probability of dying between ages 1 and 5 dropped from 244 per 1,000 to 7.75 per 1,000 (Table 13). If we consider that around 1930 under-registration of births was no doubt more widespread than nowadays, progress becomes even more impressive. The advance has been so swift that Mexico in the early 1970s had the same rate Canada had had during the 1930s, while in the 1930s Mexico had a level equal to that of Canada in the 18th century. Today, Mexico's level of child mortality compares to that of Canada in much the same way as does mortality in general, that is, the 1990 level is more or less equal to that recorded in Canada in the mid-1950s.

Table 13. Probabilities of Dying for Juveniles (Aged 1-4), Mexico and Canada, 1930-1990 (per 1,000)

Year	Mexico			Canada	
	Males	Females	Both Sexes	Males	Females
1930	236.23	252.51	244.12	26.80	23.60
1931	207.28	220.25	213.55		
1932	181.03	191.01	185.87		
1933	166.54	175.16	170.75		
1934	156.32	163.76	159.97		
1935	151.60	157.84	154.66		
1936	152.92	158.80	155.80		
1937	152.80	159.90	156.28		
1938	148.91	157.31	153.02		
1939	145.87	153.77	149.74		
1940	142.47	150.36	146.33		
1941	144.04	152.15	148.02	17.80	15.20
1942	141.94	150.22	146.00		
1943	138.08	146.42	142.16		
1944	125.39	133.29	129.24		
1945	118.07	127.01	122.40		
1946	104.10	112.07	107.95		
1947	97.27	104.48	100.75		
1948	92.63	99.54	95.97		
1949	94.77	101.63	98.10		
1950	100.83	108.12	104.37		
1951	91.06	97.57	94.23	8.30	6.80
1952	92.04	98.47	95.18		
1953	77.22	82.65	79.87		
1954	76.10	81.08	78.53		
1955	62.56	66.71	64.59		
1956	63.04	67.33	65.13		
1957	57.40	61.52	59.41		
1958	56.44	60.63	58.48		
1959	50.98	54.69	52.79		
1960	46.64	49.76	48.16		
1961	45.28	48.04	46.63	4.90	4.00
1962	43.97	46.51	45.21		
1963	43.20	45.57	44.36		
1964	40.07	42.35	41.18		
1965	37.81	40.01	38.88		
1966	34.93	36.74	35.82		
1967	35.23	36.85	36.02		
1968	34.22	35.56	34.88		
1969	35.51	36.85	36.17		
1970	33.47	34.51	33.98	3.80	3.00
1971	32.88	33.95	33.40		
1972	28.43	29.26	28.83		
1973	24.14	24.67	24.40		
1974	19.00	18.88	18.94		
1975	17.60	17.14	17.38		
1976	17.78	16.96	17.37		
1977	16.98	16.03	16.51		
1978	15.50	14.32	14.92		
1979	13.70	12.73	13.22		
1980	12.86	11.91	12.39	2.40	1.80
1981	11.30	10.55	10.92		
1982	10.19	9.50	9.85		
1983	9.49	8.86	9.18		
1984	9.45	8.77	9.12		
1985	8.90	8.22	8.56		
1986	8.55	7.90	8.23		
1987	7.88	7.14	7.51		
1988	7.92	7.06	7.49		
1989	7.96	7.07	7.52		
1990	8.16	7.34	7.75	1.70	1.30

Sources: Mexico: Gómez, José, Virgilio Partida (1992). *Niveles y Tendencias de la Mortalidad en Los Primeros Años de Vida en México, 1930-1990*, CEPS, Mexico.

Canada: Nagnur, Dhruva (1986). *Longevity and Abreged Life Tables, 1921-1981*, Statistics Canada. For 1990, author's calculations.

During each of the decades between 1930 and 1990, reductions in infant and child mortality together have almost always represented half of the total gains in life expectancy at birth. While the overall level of these gains is not surprising, the irregularities observed from decade to decade and between the two sexes question the quality of data.

Mortality before age five, which weighs heavily in the calculation of life expectancy at birth, was still sufficiently high in the early 1990s that it may be expected that reductions in this area will, for many years to come, be responsible for a good part of any improvement in that index.

Comparison of mortality in Canada and Mexico

The life tables for the most recent period available are those drawn up by CELADE and are thus no doubt slightly different from those calculated by other authors, but not to the point of hindering comparison with Canadian tables. The form of the death probability curve shows that the status of mortality in Mexico in 1990 is quite similar to that of Canada in 1950. There is, however, one difference: adult male excess mortality is much higher in Mexico in 1990 than it was in Canada in 1950. This may be due to the fact that, in the two countries, it was not the same birth cohorts that experienced the great increase in automobile use in recent decades, which is responsible for a great number of fatal accidents.

Whether we look at figures from Gomez and Partida or those calculated by Camposortega, we can see that, as in Canada, there is a widening gap between the trend in male and female life expectancies (Table 14).

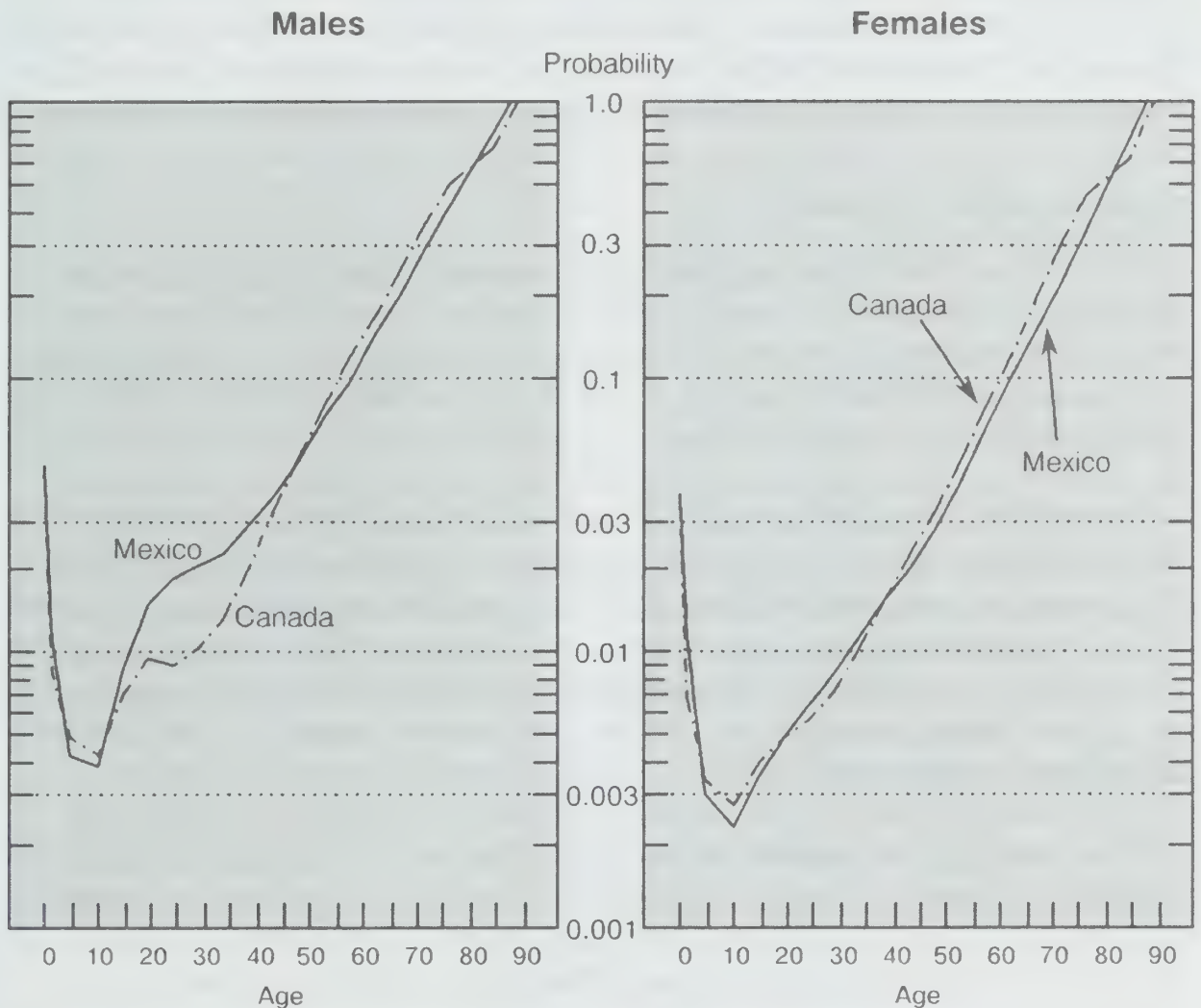
Table 14. Life Expectancy at Birth at Different Dates According to Two Different Sources, Mexico

Year	Gómez et Partida			Camposortega		
	Males	Females	Difference	Males	Females	Difference
Around 1930	35.10	37.63	2.53			
Around 1940	40.54	43.44	2.90	39.12	41.65	2.53
Around 1950	47.62	51.67	4.05	46.74	50.68	3.94
Around 1960	55.20	59.50	4.30	55.99	59.73	3.74
Around 1970	58.32	63.57	5.25	59.01	63.06	4.05
Around 1980	61.99	69.72	7.73	63.16	69.39	6.23
Around 1990	66.14	73.37	7.23			

Sources: Gómez, J., V. Partida and S. Camposortega, op. cit.

Figure 10

**Age-specific Probability of Dying, Mexico (1985-1990)
and Canada (1950-1952)**



Sources: Canada: Nagnur, Dhruva (1986). *Longevity and Historical Life Tables (Abridged) 1921-1981*, Catalogue No. 89-506.
Mexico: CELADE (1989). *América Latina Tablas de Mortalidad*, Boletín Demográfico, No. 44, Chile, p. 230.

Mortality has not only declined among children. At the other end of life, there have been significant gains. Accordingly to Composortega's tables, between 1930 and 1980, the probability of reaching age 80 for men aged 60 rose from 23% to 43%, and for women from 26% to 53%. It is certain that these probabilities have further increased in the past ten years. In Canada, the probability for males is 47% and for females 68%.

Level of mortality in Mexico

In the opinion of CELADE demographers, although considerable progress has been made, mortality in Mexico is still quite high in comparison with countries of the same level of development (Cuba, Costa Rica, etc.). It would appear that this is due to infant and child mortality, as well as male excess mortality by accident well above that of the countries under comparison. As well, the national level masks considerable differences between rich and poor regions.³⁷

Cause-specific mortality

Despite the WHO classification rules, cause-specific mortality is rather poorly measured in Mexico. The quality of information often forces researchers to confine themselves to the major headings of the International Classifications of Diseases (ICD 8 and 9), making it possible to give only an outline description which yields no surprises.³⁸

Some 70% of infant mortality is due to perinatal diseases, parasitic and infectious diseases and diseases of the respiratory system. For child mortality, the causes involved are the same, but infectious diseases rank first. For those 15 to 49, first place goes to accidents, with diseases of the digestive and the circulatory system trailing far behind. Breast and cervical cancers are responsible for excess female mortality due to tumours. Recent changes mainly involve a reduction in maternal mortality.

From age 50 to 65, causes of death are fairly different from those of the previous age group. We see an increase in excess male mortality caused by diseases of the circulatory and digestive systems. For women, cancers and diseases of the circulatory system are the major groups of causes.

In short, the trend in cause-specific mortality in Mexico is only known in broad terms, although there is nothing to indicate that it deviates from the classical lifetime growth pattern of mortality in under developed countries.

MARRIAGE IN MEXICO

Analysis of the marital status of people counted in a census is certainly not the best way to study the nuptiality of a population. In the first place, with the exception of single status, to which there is no return, all other statuses may occur several times. In the second place, migration may cause the numbers of people in each status to vary over time, as do marriage, divorce and widowhood.

³⁷ Unfortunately, given the severe defects in data, it is not possible to use vital statistics figures in support of this argument (see chapter on sources of data).

³⁸ J. Gomez de Leon and Jaime Sepuvela Amor - Tendencias recientes de la mortalidad por causas en Mexico - CEPS 1993.

Seen from a social point of view, the conjugal life of individuals is, as a general rule, always complicated. Standards change: an institution like marriage may go out of style, divorce may become more common, and as adult mortality rates diminish the result is changes in marital status that formerly would have been considered less likely. As time progresses, then, the marital status of individuals at the time of a census is less and less indicative of their history. But demography must often estimate behaviours based on available data, and it is possible, with certain hypotheses, to get an idea of how populations will behave through similarities or differences at a given age. A comparison of the male and female populations of Mexico and Canada in the 1990 Census (1991 for Canada) yields several enlightening observations (tables 15A and 15B).

Women and marriage

- 1) *Marriages seem to take place earlier in Mexico.* At the same age, recent birth cohorts have fewer single people in Mexico than in Canada. Thus in the 25 to 29 age group, only 21% of Mexican women are single, while in Canada this figure is almost 30% for the same cohorts. Conversely, there were more single persons at age 50 among the Mexican birth cohorts prior to 1942 than among their Canadian counterparts. This situation seems strange to the point where it leads us to suspect statistical reporting problems.
- 2) *Common-law marriages seem to have been prevalent earlier in Mexico than in Canada.* To support this, we have the fact that, in birth cohorts prior to 1952, the proportion of women in common-law relationships is higher than in Canada (see following pages regarding the origin of this form of conjugal life). In more recent cohorts, however, it is in Canada that we find a larger proportion of women in common-law relationships.
- 3) With respect to the divorced state, there are many more divorced women in Canada than in Mexico in all birth cohorts. We may thus conclude either that *divorce is less frequent in Mexico* or that divorcees more often remarry. The first hypothesis is in fact more realistic. Couples separate but tend not to divorce.
- 4) Mexico has a larger proportion of widows. This may be the result of higher male mortality or the fact that widows are less likely to remarry.

Men and marriage

- 1) Men also seem to leave the single state more quickly than their Canadian counterparts, but Julieta Quilodran³⁹ suspects that many divorced men describe themselves as single in censuses.

³⁹ Julieta Quilodran, Niveles de fecundidad y patrones de nupcialidad en Mexico, El Colegio de Mexico, Centro de estudios demograficos y de desarrollo urbano, 1991.

Table 15. Distribution of the Mexican and Canadian Population (in %) by Age Group and Marital Status
Mexico 1990

Age Group	Marital Status					
	Single	Married	Common Law	Separated	Divorced	Widow(er)
Males						
15-19	94.3	2.9	2.2	0.1	0.0	0.1
20-24	61.1	27.9	9.0	0.4	0.2	0.1
25-29	29.3	57.5	11.3	0.6	0.4	0.2
30-34	14.0	73.2	10.6	0.7	0.6	0.3
35-39	8.6	78.5	10.3	0.8	0.7	0.5
40-44	6.4	80.8	9.5	0.9	0.8	0.9
45-49	5.6	81.1	9.5	1.0	0.8	1.5
50-54	5.3	80.3	9.2	1.2	0.8	2.5
55-59	4.8	79.0	8.7	1.3	0.8	3.7
60-64	5.0	77.5	8.5	1.4	0.8	5.9
65 +	4.9	69.5	7.0	1.5	0.8	14.8
Females						
15-19	83.9	9.8	5.4	0.5	0.1	0.1
20-24	45.4	40.6	10.8	1.5	0.5	0.4
25-29	21.2	63.2	11.2	1.9	1.0	0.8
30-34	12.1	71.6	10.3	2.3	1.6	1.6
35-39	9.0	73.4	9.8	2.7	1.9	2.7
40-44	7.9	73.1	8.7	3.0	2.1	4.6
45-49	7.1	71.7	8.2	3.1	1.9	7.2
50-54	7.1	68.3	7.1	3.3	1.9	11.5
55-59	6.7	65.0	6.3	3.3	1.8	16.0
60-64	7.2	57.5	5.6	3.1	1.7	23.8
65 +	7.7	40.1	4.1	2.1	1.5	42.7
						0.3
						0.9
						0.5
						0.5
						0.6
						0.7
						0.8
						0.9
						1.0
						1.2
						1.8

See notes at the end of this table.

Table 15. Distribution of the Mexican and Canadian Population (in %) by Age Group and Marital Status - Concluded
Canada 1991

Age Group	Marital Status					
	Single	Married	Common Law	Separated	Divorced	Widow(er)
	Males					
15-19	98.7	0.5	0.7	0.1	0.0	0.0
20-24	81.6	8.7	9.1	0.4	0.2	0.0
25-29	45.7	37.6	13.9	1.5	1.3	0.0
30-34	24.2	59.5	11.3	2.4	3.1	0.1
35-39	14.8	68.4	8.9	2.9	4.8	0.2
40-44	12.4	73.5	7.4	3.1	5.9	0.3
45-49	7.6	75.9	6.5	3.0	6.4	0.6
50-54	6.7	78.1	5.1	2.8	6.1	1.1
55-59	6.6	79.3	4.0	2.5	5.5	2.0
60-64	7.0	79.3	2.9	2.4	4.7	3.7
65 +	6.9	73.8	1.5	2.0	2.8	12.9
	Females					
15-19	95.6	1.3	2.9	0.1	0.0	0.1
20-24	64.6	19.4	14.2	1.2	0.5	0.1
25-29	29.7	50.9	14.2	2.7	2.4	0.2
30-34	16.3	64.6	10.4	3.5	4.7	0.4
35-39	10.7	69.5	8.0	3.8	7.2	0.7
40-44	7.9	71.5	6.3	3.9	9.0	1.4
45-49	6.4	72.3	5.2	3.7	9.6	2.8
50-54	5.6	73.2	3.7	3.3	8.8	5.5
55-59	5.5	71.5	2.4	2.9	7.6	10.1
60-64	5.8	66.2	1.6	2.5	6.2	17.7
65 +	7.7	40.3	1.4	0.9	3.0	46.7

Sources: Census of Canada 1991 and Mexico 1990.

Table 16. Population Distribution by Marital Status and Five-year Age Groups, Mexico, 1960-1990 (in %)

Age	Females								
	Population 12 +	Single	Married	Married Common Law	Widowed	Divorced	Separated	Unknown Marital Status	
Age Unknown	1960								
	Total	11,189,934	34.30	44.42	8.68	8.96	0.72	.. ¹	2.91
	< 20	3,053,873	83.81	10.07	2.95	0.22	0.09	..	2.86
	20-24	1,542,203	34.56	49.48	10.93	1.17	0.50	..	3.36
	25-29	1,308,904	17.85	63.44	12.93	2.17	0.72	..	2.89
	30-34	1,042,530	12.16	67.83	12.60	3.84	0.93	..	2.64
	35-39	961,540	9.64	68.05	12.84	6.01	1.07	..	2.39
	40-44	687,017	8.86	65.22	12.02	10.34	1.18	..	2.38
	45-49	623,126	8.30	63.43	10.59	14.21	1.19	..	2.27
	50 +	1,921,862	9.04	43.94	6.99	35.66	1.21	..	3.15
	Age Unknown	48,879	13.64	42.64	12.28	13.53	4.46	..	13.46
	1970								
	Total	15,071,713	36.81	45.71	8.39	6.46	0.60	2.02	.. ²
	< 20	4,404,752	87.02	9.08	3.20	0.15	0.06	0.49	..
	20-24	2,102,041	38.46	48.18	10.43	0.69	0.36	1.88	..
	25-29	1,685,004	17.37	66.15	12.30	1.35	0.57	2.24	..
	30-34	1,310,802	10.40	71.70	12.08	2.44	0.82	2.56	..
	35-39	1,276,364	7.82	71.82	12.61	3.97	0.89	2.88	..
	40-44	973,863	7.28	70.33	11.52	6.69	1.02	3.16	..
	45-49	807,299	7.07	68.32	10.45	9.80	1.07	3.29	..
	50 +	2,511,588	9.95	50.52	7.24	28.00	1.22	3.07	..
	1980								
	Total	22,128,830	37.35	46.30	7.49	6.10	0.65	1.96	0.14
	< 20	6,591,714	86.47	8.73	3.71	0.35	0.06	0.47	0.20
	20-24	3,182,353	40.01	47.33	9.71	0.65	0.46	1.74	0.10
	25-29	2,479,332	18.43	67.10	10.25	1.16	0.84	2.12	0.08
	30-34	1,952,431	11.21	73.27	9.81	2.04	1.08	2.50	0.09
	35-39	1,742,361	8.46	73.68	10.34	3.48	1.11	2.83	0.09
	40-44	1,385,492	7.36	72.66	9.67	5.81	1.17	3.23	0.10
	45-49	1,180,940	6.97	70.46	9.08	8.69	1.18	3.51	0.10
	50 +	3,614,207	7.90	53.85	6.55	27.50	0.94	3.08	0.18
	1990								
	Total	28,829,665	37.94	45.45	7.51	5.62	1.03	1.79	0.66
	< 20	8,048,266	89.64	6.11	3.45	0.11	0.05	0.33	0.30
	20-24	4,091,035	45.37	40.62	10.76	0.43	0.47	1.49	0.85
	25-29	3,353,917	21.19	63.21	11.23	0.85	1.04	1.94	0.54
	30-34	2,808,883	12.10	71.65	10.26	1.56	1.61	2.32	0.50
	35-39	2,368,551	9.02	73.38	9.77	2.70	1.89	2.67	0.57
	40-44	1,792,757	7.93	73.05	8.65	4.63	2.08	2.96	0.70
	45-49	1,519,287	7.11	71.69	8.17	7.20	1.93	3.15	0.75
	50 +	4,846,969	7.26	55.30	5.58	26.09	1.68	2.80	1.29

See notes at the end of this table.

Table 16. Population Distribution by Marital Status and Five-year Age Groups, Mexico, 1960-1990 (in %) - Concluded

Age	Males							
	Population 12+	Single	Married	Married Common Law	Widowed	Divorced	Separated	Unknown Marital Status
1960								
Total	10,852,867	40.87	44.84	8.11	2.95	0.35	.. ¹	2.87
< 20	3,053,171	93.42	2.72	0.76	0.21	0.07	..	2.82
20-24	1,404,869	57.03	30.75	7.31	0.46	0.23	..	4.22
25-29	1,195,988	27.26	56.92	11.56	0.86	0.33	..	3.06
30-34	1,009,105	15.00	68.34	12.38	1.34	0.40	..	2.55
35-39	959,140	10.19	72.03	13.02	2.03	0.46	..	2.27
40-44	674,307	7.82	73.83	12.56	3.12	0.53	..	2.15
45-49	610,482	6.58	74.50	12.18	4.22	0.59	..	1.93
50+	1,881,141	5.43	69.28	10.68	11.40	0.66	..	2.54
Age Unknown	64,664	18.22	53.37	9.91	4.93	1.39	..	12.18
1970								
Total	14,625,590	44.20	45.06	7.94	1.78	0.30	0.71	.. ²
< 20	4,408,384	96.72	2.04	0.96	0.07	0.02	0.19	..
20-24	1,930,300	61.24	30.19	7.58	0.27	0.15	0.57	..
25-29	1,575,414	27.16	60.02	11.46	0.46	0.25	0.65	..
30-34	1,285,461	13.79	72.23	11.98	0.80	0.40	0.79	..
35-39	1,235,283	9.20	75.48	12.88	1.16	0.42	0.88	..
40-44	959,477	7.40	77.16	12.26	1.73	0.49	0.96	..
45-49	829,719	6.42	77.60	12.04	2.34	0.51	1.08	..
50+	2,401,552	7.29	71.91	10.92	7.70	0.73	1.45	..
1980								
Total	21,218,163	43.32	46.73	7.15	1.76	0.26	0.66	0.11
< 20	6,484,408	94.70	2.73	1.89	0.25	0.02	0.19	0.22
20-24	2,972,174	59.24	31.85	7.90	0.27	0.15	0.52	0.06
25-29	2,325,060	25.40	63.25	9.97	0.33	0.34	0.66	0.05
30-34	1,885,628	12.10	76.32	9.91	0.48	0.43	0.71	0.05
35-39	1,664,573	8.35	79.12	10.49	0.79	0.41	0.79	0.05
40-44	1,359,706	6.62	80.46	10.24	1.32	0.43	0.88	0.05
45-49	1,134,889	5.80	80.48	10.21	1.96	0.44	1.04	0.06
50+	3,391,725	5.21	75.38	9.17	8.26	0.49	1.41	0.09
1990								
Total	27,084,182	43.40	46.09	7.24	1.53	0.41	0.60	0.74
< 20	7,919,108	96.15	1.85	1.46	0.07	0.02	0.06	0.39
20-24	3,738,128	61.10	27.91	9.03	0.13	0.15	0.38	1.30
25-29	3,050,595	29.27	57.47	11.27	0.19	0.40	0.56	0.84
30-34	2,578,736	13.96	73.19	10.65	0.30	0.60	0.68	0.64
35-39	2,210,565	8.64	78.46	10.28	0.51	0.72	0.80	0.60
40-44	1,705,013	6.45	80.78	9.50	0.91	0.80	0.92	0.65
45-49	1,452,573	5.59	81.05	9.47	1.46	0.78	1.03	0.62
50+	4,429,464	5.01	75.91	8.16	7.73	0.80	1.38	1.01

¹ Probably enumerated in another marital status.

² This category was redistributed.

Sources: Censuses of Mexico 1960, 1970, 1980, 1990.

Table 17. Cumulated Proportion of Mexican Females Married Before Age x, for Different Cohorts

Exact Age x	Age Group at Survey					
	20-24 (1952-1956)	25-29 (1947-1951)	30-34 (1942-1946)	35-39 (1937-1941)	40-44 (1932-1936)	45-49 (1927-1931)
15	7.8	11.0	11.1	11.9	11.7	12.8
20	50.9	53.1	56.4	58.2	59.8	54.4
25		80.1	81.3	82.5	81.6	82.3
30			89.6	90.6	90.1	90.9
35				94.0	92.6	93.7
40					93.8	94.7
45						95.2

Note: The years in parenthesis are the border-years of the cohorts.

Source: Quilodran, Julieta (1991). *Niveles de Fecundidad y Patrones de Nupcialidad en México*, El Colegio de México, p. 24.

- 2) In practically all Mexican birth cohorts, there are more men in common-law relationships than in Canadian cohorts. Since this phenomenon has already been observed in the female population, one can conclude that this form of cohabitation is not of the same origin as the non-legalized unions which have only become common in Canada since 1970. *The 1930 Mexican Census determined that 23% of men and women over 15 were in common-law relationships*, whereas in Canada this proportion was certainly minute.
- 3) The proportion of widowers tends to be slightly higher in Mexico than in Canada. Female mortality is higher, marriage more frequent and widowers no doubt less likely to remarry.

But the recent period has seen changes in the marriage habits of individuals throughout the world. In "Marriage and Conjugal Life in Canada"⁴⁰, there is a detailed description of changes in behaviour. In Mexico, we note a recent change in customs by comparing the marital status of members of different birth cohorts at the same ages in successive ten-year censuses (tables 16A and 16B). It can be seen that in younger cohorts, women and men remain single a little longer than their elders did, with the phenomenon being more pronounced for females than for males. For example, in the 20 to 24 age group in 1970, only 38.5% of women were single, while in the same age group in 1990, there were still 45.4%. In the 25 to 29 age group, the proportion rose from 17.4% to 21.2%.

Based on vital statistics records, J. Quilodran observed a concentration of formation of unions in the 20 to 34 age segment, with 46.5% of marriages in 1975 and 52.5% in 1989⁴¹. The 1976 survey confirms the conclusions shown in Table 17.

⁴⁰ Statistics Canada. Current Economic Analysis, Catalogue No. 91-534E.

⁴¹ J. Quilodran. La nupcialidad, Les cambios mas relevantes - Demos 1992, p. 13.

Between 1970 and 1990, divorce⁴² apparently rose slightly in Mexico since, among women in the 40 to 44 age group, the proportion of those who were in the status of divorce rose from 1.0% to 2.1%, and for those in the 45 to 49 age group from 1.1% to 1.9%. For men, the differences are negligible (rising from 0.5% to 0.8% for those 40 to 44 and 45 to 49 years). The possibility of false declarations by divorced men must, however, be borne in mind (see above).

Marriage tables

The marriage table is certainly the most appropriate instrument for a study of the intensity and tempo of first marriage at a given point in time.

The most recent first-marriage tables (1970, 1980, 1990) established by J. Quilodran for CONAPO (Tables A5 in the Appendix) show trends in how Mexicans leave the single state which may be compared to the those in Canada for the same years.

We see that *in Mexico the intensity of first marriage for both sexes has remained close to unity. Over the past 30 years, of the fictitious cohort of the 1,000 men or women who were single at age 12, there were only 50 to 70 never-married persons at age 50.* Over the past 20 years, on the other hand, there has been a major change in tempo in the form of an increasingly later age at first marriage, which may be seen in the proportions of single people shown in successive tables. The most significant change has occurred recently (between 1980 and 1990), and it has mainly affected female nuptiality. In the table, the number of women married at age 20 has decreased since 1970 from 418 to 401 to 345 and those of men married at age 25 from 579 to 597 to 561. There has thus mainly been a reduction in early marriages, which is illustrated by a slight variation in the median age which rose from 21.8 to 22.0 over a 30-year period. Compared with 30 years before, the additional 73 single 20-year-old women in the table have certainly had an effect on the decline in fertility (see further on). Male nuptiality, on the other hand, has changed less. Over the same period, the number of men married at age 20 in the table remained the same at 192, and there was even a very slight increase in 1980.

Common-law marriages

Mexican censuses classify individuals in the following categories: civil marriage, religious marriage, civil and religious marriage, common-law, divorced and separated. *Common-law marriage in Mexico is an old form of marriage, dating well back in the country's history and still persisting today. In the distant past, many couples formed stable although unsanctioned relationships. There are still couples in the older generations who, despite the opportunity to do so,*

⁴² We are speaking here of divorce as a legal procedure terminating a marriage and not simply separation, which, although it does not allow remarriage, is much more common.

**Table 18. Age at First Union by Type of Union
(Females Aged 35 to 49), Mexico**

Type of First Union	Age at First Union	Percentage
Civilian	19.9	14.2
Civilian and religious	20.0	60.6
Common Law	18.8	25.2
Total	19.7	100.0

Source: Quilodran, Julieta (1991). *Niveles de Fecundidad y Patrones de Nupcialidad en México*, El Colegio de México, p. 151.

have never married legally. Another result of this tradition is what is actually a form of trial marriage (common-law marriage). In half of all cases, these arrangements are now subsequently converted to legal marriages. Surveys (EMF and EMFES) confirm the large number of Mexicans who live in common-law before making their marriage legal, particularly those who begin living together very young (Table 18). In this area, through a mixture of tradition and modernism, Mexico appears to have been ahead of the northern European countries which set the example for western Europe and North America. It should be remembered that married life in Mexico is a field requiring more detailed study, since it differs from that of both the West Indies and the other Latin American countries.

For a long period, the clergy celebrated marriages, and these religious marriages had legal value at the time. At the present time, only civil marriage is recognized in law, and priests in principle celebrate religious marriages only on presentation of a civil marriage certificate.

Marriage breakdown

Apart from the death of a spouse, marriages end through separation and divorce. *Divorce exists in Mexico, but it is costly and so far accessible to only a small proportion of the population.* When marriage breaks down, quite often spouses only separate or opt for "arrangements" outside legal sanctions. Unable to remarry, they live in common-law relationships. These relationships are thus of quite different origin than the common-law relationships discussed above. For women, we may have a partial estimate of the intensity of marriage breakdown by the number of marriages declared by women surveyed. Of the women in the 1927 to 1931 generation, who thus fell into the 45 to 49 age group at the time of the survey, 8.9% had had two of these relationships (of one type or another) and 2.8% three or more.⁴³

⁴³ J. Quilodran. *Niveles de fecundidad y patrones de nupcialidad en Mexico*, El Colegio de Mexico, 1991, p. 31.

Table 19. Females for Whom the First Union was Dissolved, by Cause of Rupture and Cohort, Mexico, (in %)

Cause of Rupture	Age Group at Survey							Total
	15-19 (1957-1961)	20-24 (1952-1956)	25-29 (1947-1951)	30-34 (1942-1946)	35-39 (1937-1941)	40-44 (1932-1936)	45-49 (1927-1931)	
Widowed	0.6	1.3	1.5	4.5	8.3	9.1	13.8	5.2
Separation and Divorce	7.4	9.7	9.6	10.4	12.6	12.7	14.6	11.0
Total	8.0	11.0	11.1	14.9	20.9	21.8	28.4	16.2

Note: The years in parenthesis are the border-years of the cohorts.

Source: Quilodran, Julieta (1991). *Niveles de Fecundidad y Patrones de Nupcialidad en México*, El Colegio de México, p. 28.

Although the survey indicates that 28.4% of women 45 to 49 had their first marriage end in either widowhood or divorce (Table 19), it has been observed that, the more recent the birth cohort, the more likely marriage is to end in divorce rather than widowhood: 12.6% instead of 8.3% in the 35 to 39 age group, and 9.7% instead of 1.3% in the 20 to 24 age group. These figures are not in themselves a sign of the effect of divorce, since when a marriage ends, the younger the partners are, the more likely it is that the cause will be divorce rather than the death of a spouse. However, the increase in divorce over time can be seen in Table 20, in which the figures only take into account marriage breakdowns before age 25. The role of mortality has clearly declined, but in lower proportions than the increase in divorce.

Table 20. Females for Whom the First Union was Dissolved Before the Age of 25 by Cause of Rupture and Cohort, Mexico (in %)

Cause of Rupture	Age Group at Survey						Total
	20-24 (1952-1956)	25-29 (1947-1951)	30-34 (1942-1946)	35-39 (1937-1941)	40-44 (1932-1936)	45-49 (1927-1931)	
Widowed	1.3	1.1	2.4	2.8	2.5	2.1	1.8
Separation and Divorce	9.6	7.2	5.1	6.5	4.8	4.8	6.1
Total	10.9	8.3	7.5	9.3	7.3	6.9	7.9

Note: The years in parenthesis are the border-years of the cohorts.

Source: Quilodran, Julieta (1991). *Niveles de Fecundidad y Patrones de Nupcialidad en México*, El Colegio de México, p. 29.

MIGRANTS AT THE NORTHERN BORDER

We are reminded here of the words of the Roman poet Terence, almost universal in scope, "Homo sum: humani nihil a me alienum puto"⁴⁴ which, in the context of this study, might be adapted as "I am Canadian, and nothing that is North American is foreign to me." The demographic relations between Mexico and the United States are an integral part of the development of two countries with which Canada has recently decided to form closer ties and create partnerships. An understanding of migratory movements, their origins and history, and an interest in their future trends is thus not mere idle curiosity. On the contrary, comprehending the mechanisms that govern these forces is essential to the establishment of all kinds of future relationships, even though to date Canadians and Mexicans have not been engaged in significant population exchanges.

Movements of population between the United States and Mexico are as old as the countries themselves. If some of the names found in the southwestern U.S. are not evocative enough of this past, (Los Angeles, San Diego, New Mexico, Santa Fe, etc.), we merely have to recall that several of the larger U.S. states (California, Texas, New Mexico, Arizona, Nevada, Utah and Colorado), were first Spanish-speaking and even Mexican states which, after their separation, became part of the United States in the first part of the 19th Century (Treaty of Guadalupe-Hidalgo in 1848, Texas 1845). *Because of its history and geography, there is thus a large area that lends itself to population movements between the two now-separate countries. The Mexicans who settled in the United States after all the wars and treaties inevitably kept close contacts with their former fellow citizens, sharing such elements as culture, language, religion and traditions. Moreover, the different industrial paths followed by each country have resulted in the development of a degree of economic complementarity that has been fostered by similarities of geography and climate.*

The early 20th Century saw periods of intense migratory activity. At the end of the Porfiriato period, Mexico experienced a high rate of emigration precisely to those former northern states, which after all had only recently become part of the United States and had only begun developing their infrastructure. This migration flow increased slightly during the revolutionary period. Then, starting in the 1930s, the expansionist policies of successive governments resulted in the "return" of Mexicans who had formerly chosen exile. This return movement was encouraged by strong government incentives in Washington encouraging Mexicans to leave a country suffering from the Depression. The Second World War re-opened the frontier of the Rio Grande to Mexicans, heralding the modern era of migratory relations between the United States and Mexico. Agriculture in the United States was at the time suffering from a shortage of workers in the

⁴⁴ I am human, and nothing that is human is foreign to me.

large fruit and vegetable growing sectors, as well as for the cotton harvest, where there was a need for cheap labour.⁴⁵ *The “bracero” (labourer) program was approved in August 1942* and while the American government withdrew as a contracting party on December 31, 1947, the embryo form of the program, whereby employers were authorized to recruit Mexican workers, remained in force until 1964. These workers could legalize their situation⁴⁶ once in the United States, although under less advantageous conditions than under the original “bracero” program, and increasingly tended to hold jobs quite different from those stipulated in the original program. Threatened on a number of occasions by expressions of doubt as to the need for it, the “bracero” program was nevertheless extended several times⁴⁷ through the efforts of lobbies representing major U.S. farm producers.⁴⁸ Although the Mexican government did not formally oppose termination of the program in 1964⁴⁹, it nevertheless made a considerable effort to find alternative solutions so that Mexican workers might continue to be admitted into the American economy. The combination of efforts by the two protagonists gave rise to a proliferation of “green cards” that allowed the migration of Mexican workers to continue. The U.S. Immigration and Naturalization Service indicates that, from 1942 to 1964, 4.65 million Mexicans were admitted to the United States. *Experience has shown that termination of the “bracero” program resulted in an increase in illegal immigration. This was made all the easier since those migrations had become a routine, employers were well-known and many more Mexican host communities had grown up in the United States during the two decades in which the program was in effect.*

Although population movements at Mexico’s northern border are not a recent phenomenon, it is the current intensity of these movements that is surprising to many. Rather than being a new phenomenon, however, *this Mexican emigration is but one episode in a continuing story*. If these migrations have been considerably larger over the past twenty years, it is now because they have been exacerbated by more pronounced differences in growth between the Mexican population and its economy, the former growing considerably more rapidly than the latter. In fact, while the considerable increase in the number of births caused by the second phase of the demographic transition took place in a period of economic prosperity, the arrival of these children as adults on the job market has coincided with a decline in the rate of growth of the Mexican economy. From the early 1980s in particular, oil prices dropped sharply and petroleum reserves

⁴⁵ P.L. Martin, *Trade and Migration: NAFTA and Agriculture*. Institute for International Economics, Washington, D.C., 1993, p. 59.

⁴⁶ These illegal immigrants were legalized by a process known, even in official U.S. government publications, as “drying out the wetbacks,” an allusion to the fact that they swam across the Rio Grande. Source: Presidential Committee on Migrant Workers, 1951.

⁴⁷ “Legalization of illegal workers in the United States should be discontinued and prohibited” states the report of the Presidential Committee, 1951. These recommendations were not followed.

⁴⁸ In 1960, President Kennedy was convinced that the “bracero” program had a detrimental effect on the wages and working conditions of American workers. He nevertheless reluctantly approved a two-year extension to the program (Craig 1971, quoted by P. Martin 1993).

⁴⁹ Termination of the program was passed by only one vote in the Senate, that of the Speaker.

no longer sufficed to support high levels of investment and foreign debt. A reduction in economic growth implies a slowdown in job creation, all the more serious *at a time when young people will be entering the labour force by the millions* (see chapter on growth). In addition to demographic pressures, the fact that Mexican migrants have been exposed to the American way of life for the past half century has been a major contributing factor in creating a degree of dependence on emigration. Employers in the United States are well aware of this attraction, and this has contributed to making Mexico a major source of emigrants⁵⁰. "Given the low wages or lack of jobs, migration to the United States becomes almost inevitable."⁵¹

The logical Mexican reaction to the increase in available labour can be seen in the number of emigrants to the United States, which has fuelled a vast number of articles on the "problem" posed by immigration. However, as we will see further on, a major change in the Mexican philosophy of development since 1988 might have significant, though no doubt long-term, consequences on Mexico's ability to create jobs and thus slow the tendency to emigrate.

Mexicans in the United States

We should first clarify what we mean by certain concepts. When a country takes a census of its population, it classifies individuals in various ways.

In the United States, among those defined as Hispanic in origin, we find, in addition to Cubans and Porto Ricans, Mexicans. These are people who, whether born in the United States or not, resided there on census day and had a Mexican ancestor. In this category of persons of Mexican origin, the 1990 Census counted 13,495,938, of whom 45.3% lived in California, 28.8% in Texas, 4.6% in Illinois and 2.4% in New Mexico.

A second classification takes into consideration the place of birth of those counted. In 1990, there were 4,296,014 persons born in Mexico (basically meaning immigrants, both recent and long-standing), and of these only 969,704, or 22.6%, had American citizenship. Of those born in Mexico, 24% or 1,032,426 were counted in one of the southern states, including 907,432 in Texas; 66% or 2,843,154 in one of the western states, including 2,474,148 in California, and 7.5% or 320,892, in the northeastern states, 281,651 of them in Illinois. The 1991 Census of Canada counted only 19,400 people born in Mexico. This situation is a census day balance of past geographical movements (immigration and return migration) and demographic movements (immigrant mortality).

⁵⁰ See P.L. Martin: "Trade and Migration: NAFTA and Agriculture." Institute for International Economics, Washington, D.C. 1993, p. 109 ff.

⁵¹ Proceedings of the closing session of the seminar on international migration and the economic development of Mexico, Zacatecas, 1991, CONAPO 1991.

Table 21. Number of Mexican Immigrants to the United States by Decade, 1901 to 1990

Year	Number	Year	Number
1901-1910	49,642		
1911-1920	219,004		
1921-1930	459,287		
1931-1940	22,319		
1941-1950	60,589		
1951-1960	299,811		
1961-1970	453,937		
1971-1980	640,294		
1981-1990	1,655,843	Including:	
		In 1985	61,290
		In 1986	66,753
		In 1987	72,511
		In 1988	110,949
		In 1989	87,597
		In 1990	112,635

Source: US Department of Justice (1990). *Statistical Yearbook of the Immigration and Naturalization Service*, p. 50.

Recent trends

Between the 1980 and 1990 U.S. censuses, immigrants from Mexico increased from 2,199,000 to 4,447,000,⁵² an increase of 102.2% in 10 years.

Table 21 provides information on the flow of immigrants admitted under the successive immigration acts. The two phenomena mentioned previously can be observed, i.e. heavy immigration at the beginning of the century, a very low immigration in the Depression years, and a strong growth since 1961, especially during the most recent decade.

With the passage of the Immigration Reform Control Act (IRCA) in 1986, Mexicans living illegally in the United States were able to legalize their status; these were people who had been residents since January 1, 1982 and Special Agricultural Workers (SAW) employed for at least 90 days in the year preceding May 1986. In all, more than 2.2 million applications were received by Immigration and Naturalization Service (I.N.S)⁵³. These figures lead us to conclude that the great majority of applications were accepted. The Immigration Reform Control Act had two objectives: first, amnesty for the majority of illegals, and second, a desire to put an end to illegal immigration by imposing sanctions on employers who recruit illegal immigrants and also by strengthening border controls.

⁵² Being born in Mexico should not be confused with being an immigrant from Mexico.

⁵³ Statistical Yearbook, 1990. p. 91.

As we have already seen, the discussions that preceded IRCA took place in *a historical context in which migratory movements were tacitly considered by both Mexicans and Americans as being part of the overall economic relations between the two countries*. The prospect of actually closing the border thus raised concerns among many Mexicans regarding their future.

Current situation

The brief historical outline presented above has enabled us to step back and view *the phenomenon of Mexican immigration to the United States as the ongoing search for a balance between the main interests of each country, experienced on a daily basis by those involved, that is, migrants and the host population. The arrangement brings into play the status of individuals (legal and illegal migrants), and the type of migrants (permanent and temporary) as defined by legal agreements. It can also accommodate existing situations and changes in policy with the short- and long-term social consequences they cause*.

At the present time, the most highly regarded studies of current migration issues and trends are signed by such authors as Hinojosa, Robinson, Garcia y Griego, Espenshade, Acevedo, Bustamente, McCleery, Lery, Van Wynbergen, Woolf, Cornelius, Bean, Hayes-Bautista, Keely and Calva. Whatever the sources and models used, the results, despite their variances, tend to show that *the emigration to the United States observed during the 1980s is still going on and will probably continue into the 1990s and even beyond*.⁵⁴ All are in agreement that their model shows that migratory flows will then decline. But it would be wise to accept with some reservations the long-term projections and models of economists, since the elements of the problem tend to change rapidly.

Of the many studies on this topic, we have chosen that of Manuel Garcia y Griego⁵⁵ to both provide a summary of the situation and indicate the direction development is likely to take. Mr. Garcia y Griego is of Mexican origin, an American citizen, demographer, historian, teaching at the Colegio of Mexico as well as at the University of California at Irvine, and specializes in Mexican international and regional migration studies.

⁵⁴ Lic. Miguel Limon Rojas, Under-Secretary for Population and Migration with the Secretary of State, in his remarks at the closing session of the seminar on international migration and economic development in Zacatecas in 1990, stated, "According to reports by specialists, illegal migration of Mexican's into the U.S.A. has increased in recent years, and all indications are that this trend will not diminish. If we take into account projections of the demand for workers in that country and the sustained increase in the labour force in Mexico, we may expect an increase in these migratory flows." (our translation).

⁵⁵ Garcia y Griego (1990). Emigration as a safety valve for Mexico's Labor Market: A Post-IRCA Approximation.

Results of analysis by Garcia y Griego

One of the immediate consequences of IRCA was to reduce the number of illegal immigrants, by legalizing on the spot those who applied. Comparison of the figures, however, shows that: 1) all "illegals" were not converted into legal immigrants (since not all applied), and that 2) the entry of illegal immigrants persisted after 1986.

Applying recent immigration *rates* to the projected population, and similarly calculating immigrant returns and deaths, Garcia y Griego predicted that Mexican-born people living in the United States will increase by about 1,000,000 between 1990 and 1995 and more or less by the same amount during the next five years (Table 22). According to this author the great majority (80%) of these

Table 22. Projection of Mexico's Population and Migration to and From the United States (in Thousands)

Category	Mid-year Population				
	1980	1985	1990	1995	2000
Total Mexico	69,655	77,429	84,973	92,775	101,050
Mexican-born in the United States	2,618	3,517	4,474	5,470	6,461
- Legal Residents	1,411	1,590	3,038	3,147	3,253
- Undocumented Residents	1,208	1,927	1,437	2,322	3,208
Components of Change of Mexican-born Residents in the United States					
	1980-1985	1985-1990	1990-1995	1995-2000	
Total Mexican-born					
- Deaths	94.3	107.1	121.1	142.4	
- Return Migration (survivors)	171.2	231.6	289.7	343.8	
- Immigration (survivors)	1,164.5	1,295.4	1,405.9	1,477.8	
Legal Residents					
- Deaths	75.8	80.2	109.4	123.4	
- Return Migration (survivors)	77.3	85.0	170.8	160.8	
- Immigration (survivors)	332.4	1,612.8	390.0	390.0	
Undocumented Residents					
- Deaths	19.0	26.9	11.7	19.0	
- Return Migration (survivors)	93.9	146.6	118.9	183.0	
- Immigration (survivors)	832.1	- 317.4	1,015.9	1,087.8	

Note: Numbers were rounded independently. Revised upward by Warren and Passel (1987) by adding 40,000 males aged 30-64 missed in the United States census and 47,000 net increase estimated during April, May and June 1980.

Source: Garcia y Griego (1990). Emigration as a Safety Valve for Mexico's Labor Market: A Post-IRCA Approximation, *Immigration and International Relations*, G. Vernez (Pub.), Rand Corporation/Urban Institute.

increases will no doubt be made up of illegals. He explains that the smaller increase in legal immigrants after 1990 would be due, if immigration rates are constant, to a higher Mexican resident population which would yield more deaths and more returns. He emphasizes, however, that naturalizing Mexican immigrants would likely increase the number of visas granted under the family reunification program. As well, he thinks that legalization of temporary Special Agricultural Workers would have the same effect after 1990 as IRCA had after 1986; from an accounting standpoint, this results in a transfer from the illegal to the legal column. He notes, however, that we must keep an open mind, since economic conditions in the United States may in the future influence positively the demand for labour and consequently perhaps increase the number of legal immigrants. In this connection, some studies point to the increase in exports of capital goods to Mexico, suggesting that this will create additional demands for labour in both the United States and Canada.

Labour force

As we saw above, the adult population of Mexico (the 15 to 64 age group) is expected to increase considerably over the next two decades. At the same time, the labour force will quite probably increase from 22 million in 1980 to 40 million by the year 2000 (Table 23). According to Garcia, if immigration rates remain at current levels, Mexicans working in the United States might rise from 2.6 million in 1990 to 4 million by the year 2000. His calculations show that the annual growth of the Mexican work force in the United States might be in the order of 114,000 to 138,000 workers.

The author has tried to give an approximate measure of the "safety-valve effect" of emigration by the difference in growth in the Mexican labour force with or without net migration, that is, taking into account returns and mortality. All other things being equal, he estimated it at 108,000 workers per year for the period 1985 to 2000. For the recent past (between 1980 and 1985), without this emigration, the Mexican labour force would have risen by an additional 11%. This U.S.-based work force does not correspond to an equivalent reduction in the "pressure" in Mexico due to the higher participation rate of Mexicans in the United States than in Mexico. This avoided growth, he believes, is essentially due to former illegal migrants. Garcia y Griego concludes that the effects of IRCA to date have thus been the opposite of those feared by Mexicans: illegals were not chased out but simply made legal. If conditions in the future remain the same as they were in the past, Mexicans between ages 30 and 50, working in the United States, who represented according to Garcia's estimates approximately 7% of the total Mexican labour force of this age group in 1985, will represent approximately 11% by the year 2000. The high proportion of this large age group is mainly due to the fact that the illegal immigrants in the overall group of immigrants working in the United States are on the average much younger and come only temporarily for the purpose of earning money.

Table 23. Projection of Mexico's Labor Force and Mexican-born Work Force in the United States (in Thousands)

Category	Labour Force in Mid-year				
	1980	1985	1990	1995	2000
Total Mexico	22,092	26,246	31,027	35,719	40,072
Mexican-born in the United States	1,426	1,994	2,640	3,329	3,990
- Legal Residents	760	910	1,903	1,986	2,019
- Undocumented Residents	666	1,084	737	1,343	1,971
Average Annual Growth of Mexican-born Labor Force Residents in Mexico and in the United States (Age 15 and Over)					
	1980-1985	1985-1990	1990-1995	1995-2000	
Total Mexico	830.8	956.2	938.4	870.7	
Total Mexican-born	113.5	129.2	137.9	132.2	
- Legal Residents	29.2	198.8	16.5	6.6	
- Undocumented Residents	83.6	- 69.6	121.4	125.5	

Note: Numbers are rounded independently. Labour force participation rates were estimated from unpublished tables of the 1980 United States Census of the Mexican-born immigrant population.

Source: Garcia y Griego (1990). Emigration as a Safety Valve for Mexico's Labor Market: A Post-IRCA Approximation, *Immigration and International Relations*, G. Vernez (Pub.), Rand Corporation/Urban Institute.

What does the future hold?

If the significant growth in the Mexican labour force in Mexico in the recent past was not greater, this is, at least in part, because of emigration. According to Garcia y Griego, this observation implies that, in future, provided conditions remain the same, this emigration will persist. Mexican emigrants to the United States originate in the northern and western states of Mexico which, in the event of an actual closing of the border, would see their labour force grow not by 2.3% a year as is now the case, but by 3.2%, which would intensify migration towards the centre of the country, which is already facing problems of demographic saturation. *Numerous studies which suggest that current economic reform will result in a mobilization of the labour force in Mexico and a reduction of emigration should reassure those concerned about the continuation of migratory movements.* But we must bear in mind that emigration to the United States is only one aspect of a much more basic phenomenon, which is rural migration, whereby many millions of Mexicans will be leaving rural areas in the relatively near future. The farming sector in Mexico is powerless to prevent this large-scale migration from continuing. Modernization brings about a surplus of

workers who must find jobs,⁵⁶ while failure to modernize results in increasing poverty which, as is the present case, pushes people to leave the farms (note the new law, passed on January 6, 1992, on price support and the sale of "common lands" (ejidos)).

The purpose of stressing the main points of this study by Garcia y Griego was to show how already existing migratory movements may gain ground in the absence of very strong national economic growth. In the present state of international relations, these migrations depend on the economic health of the United States to maintain its capacity to absorb migrants,⁵⁷ since the impact of aging of the American population alone on the demand for workers will not be clearly seen for some time. *History has shown that, over the long term, increasing productivity results in greater economic activity and an overall increase in the number of jobs. However, some analysts have noted that, from a shorter term perspective, the immediate effect of modern production techniques has been to reduce the demand for labour in certain specific sectors. From this standpoint, the enhanced productivity of modern plants, if not accompanied by an increased market, is unlikely to develop a favourable climate for the creation of large numbers of jobs during the remaining years of the second phase of Mexico's demographic transition. As well, current low female participation rates may well increase with the reduction in fertility, urbanization and women's increased desire for financial independence.* The reader will note that the effects of NAFTA have not been specifically mentioned. Although this agreement will certainly have some socio-economic consequences, they will be only one way of managing the potential for transformation inherent in the population through its growing numbers and evolving structure.

Remittances

It is a well-known fact that emigrants throughout the world, particularly temporary emigrants, put aside part of their earnings to cover the needs of those they have left behind in their home country or to build up capital which one day will be injected into the economy of their country. This is the case of Mexicans in the United States. Determining the amounts of remittances is not easy, and requires laborious calculations that can obviously yield only estimates.

⁵⁶ Luis Tellez, under-secretary, Planning Branch, Department of Agricultural and Hydraulic Resources, estimated that exports of farm products could reach \$1.3 billion in 1998, an increase of \$400 million over 1993 exports, which could result in the creation of some 150,000 jobs. According to Cornelius (1992), he estimates that the agricultural labour force will drop from 25 % of total labour force in 1992 to 16 % in 2002.

⁵⁷ Mexicans are not the only ones wishing to work in the U.S. Other strong challengers are West Indians and South Americans.

Table 24. Total Remittances from the United States to Mexico by Sending Mechanism (Intermediate Estimates), 1990¹

	Millions of Dollars
Sending Mechanism	
- Money Order	1,554
- Telegraphed Transfer	523
- Personal Check	159
- Pocket Transfer ²	915
Total	3,151
Migrant Type	
- Temporary Migrants ³	1,843
- Permanent Migrants	1,308
Total	3,151

¹ Calendar year. Without counting the 200 million dollars received by Mexican families as beneficiaries of social security.

² Cash flow brought back at their return.

³ United States workers legally residing in Mexico.

Source: Lozano, Fernando (1993). *Bringing it Back Home*, University of California, San Diego, p. 60 and 62.

The Bank of Mexico estimates remittances at a minimum of \$2 billion for the year 1990. Fernando Lozano⁵⁸ calculated⁵⁹ the total amounts of money transferred from the United States to Mexico by the various types of transactions. The amounts shown in Table 24 are certainly not a major loss for the U.S. economy (\$3.2 billion).⁶⁰ But these amounts have more significance for the Mexican economy. *By comparison, agricultural exports that year brought in \$2.2 billion, tourism \$3.4 billion, and assembly plants (maquiladoras) \$3.6 billion.* This says little about those who receive these remittances. According to Lozano, Taylor, Watts and many others, for a large number of rural families, remittances are considered part of their normal income. Martin⁶¹ estimates that sending \$300 a month may quadruple the annual income of a rural family. It should also be noted, in support of these estimates, that the states that provide the largest number of emigrants to the United States are very rural (Michoacan, Jalisco, Guanajuato, Guerrero and Zacatecas). *These sources of funds are often major incentives for temporary and repeat emigration, to the point where a culture has developed of which such migration is an essential part.*

⁵⁸ Fernando Lozano Ascencio, "Bringing it back home," published by the Center of U.S.-Mexican Studies, USCD. University of California, San Diego, 1993.

⁵⁹ He considers his estimate a minimum since he takes into account only transfers of funds and not of property, and only by known legal and illegal emigrants. He leaves out of the calculation transfers by businesses, Mexican residents and emigrants returning to the country. Funds sent by groups are also excluded.

⁶⁰ According to Lozano (1993), remittances in 1990 were also \$3.2 billion, or 1.5 % of the G.N.P.

⁶¹ Op. cit., p. 13.

In conclusion, movements of population from Mexico to the United States are an old tradition. *Current migratory trends originate in a complementarity that has grown up between the U.S.A., which has become accustomed to having access to a pool of Mexican workers and Mexico, which takes advantage of American requirements to provide jobs for a population that is currently too large for its economy.* This migration is very well organized, and the network of communications and host communities are an integral part of the economic life of a large Americano-Mexican complex taking in a number of states ranging from California to Zacatecas. The very rapid expansion of the present Mexican population, if not coupled with similar growth in the economy, inevitably will increase the pressure on migration. Although there have already been organized migrations of Mexican workers to Canada,⁶² it is most likely that it will be as an economic spinoff that Canada is affected by the growth of the Mexican population. This does not, however, mean that flows of immigrants will not increase somewhat in the future. In the 1991 Census, only 19,400 people born in Mexico were counted in Canada. Although this figure was low, it nevertheless represented an increase over 1986 (13,845). While the numbers are small relative to the flows to the U.S., concerns have been expressed that migration to Canada may contribute to a "brain drain" if this migration should increase significantly.

INTERNAL MIGRATION

As in all countries, people in Mexico move for many reasons. But unlike industrialized countries, Mexico is still at an important stage in its development; the operating framework of its economy is not yet stabilized, the mechanization of agriculture is not yet highly advanced and consequently rural migration is still going on. This is certainly a major factor determining the great mobility of the population (Table A6 in the Appendix). We see that states in which a major fraction of the population was not born in the state are also those in which recent migration is heaviest. This leads us to think that these states have been highly attractive for some time. For a given state, a significant difference between a large number of people born outside the state and a smaller number of recent immigrants may be cautiously interpreted as an older trend that has recently been winding down.

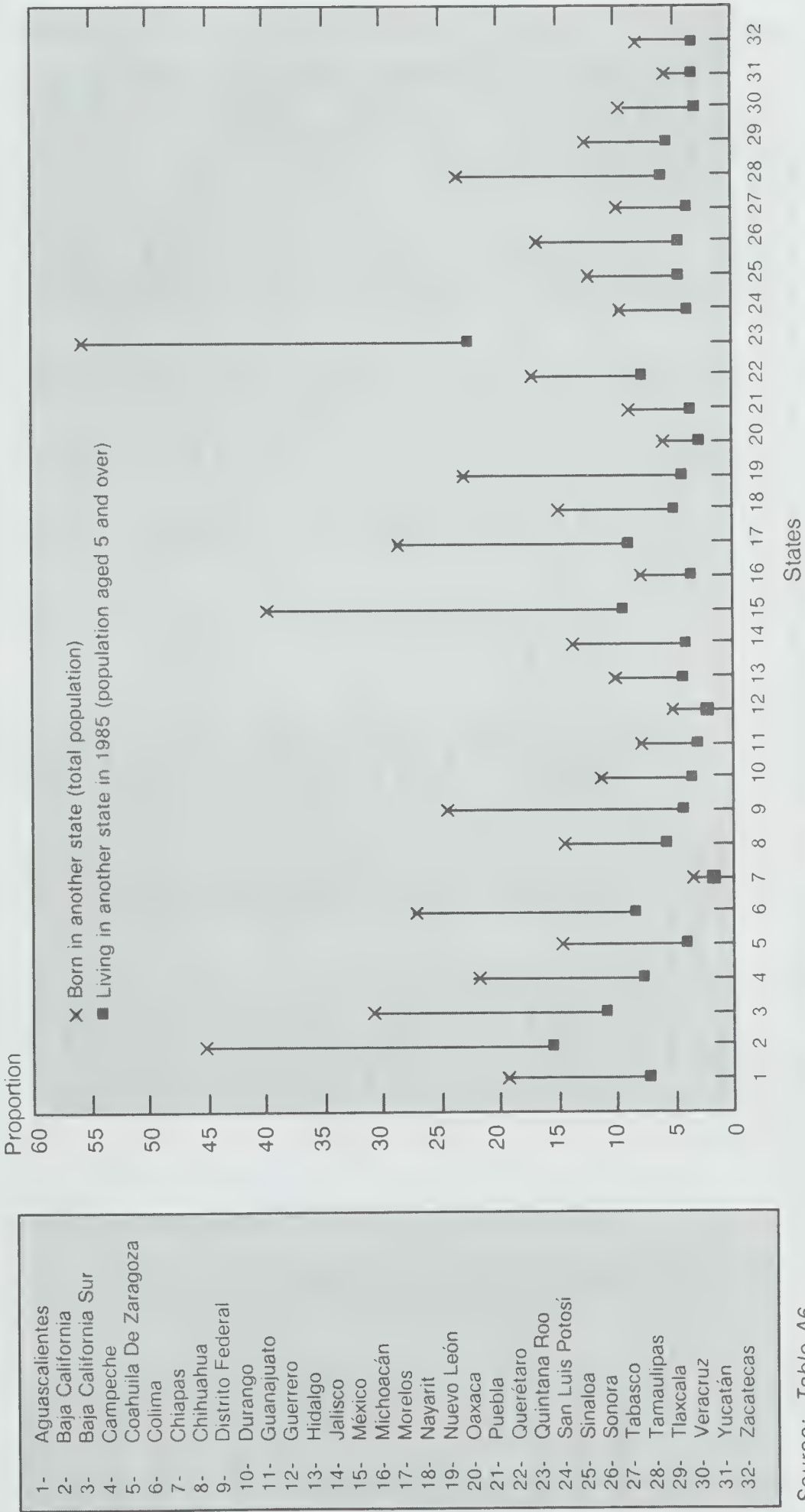
Present-day migration

Place of residence five years before the census gives only an approximate idea of flows, since the only people counted are those over age five who survived and did not leave the country. They may also have made several moves which were not recorded. These statistics do, however, enable us to draw up a short-term balance sheet indicating the states which gained population and those which lost in the bargain.

⁶² Augustin E. Ibarra. "Programa de trabajadores agricolas temporales mexicanos in Canada" in *Migracion internacional en las fronteras norte y sur de Mexico*, CONAPO, 1992.

Figure 11

Percentages of the Mexican Population by State in 1990, According to the State of Birth and the State of Residence in 1985



Source: Table A6.

Table 25. Net Migration Flows by Mexican State, 1985-1990 (Population Aged 5 and Over at the end of the period)

State	Winners			State	Losers		
	In	Out	Net Gains		In	Out	Net Losses
Aguascalientes	43,979	17,452	26,527	Chiapas	42,322	69,824	-27,502
Baja California	220,564	40,309	180,255	Coahuila De Zaragoza	69,194	80,748	-11,554
Baja California Sur	29,460	11,735	17,725	Distrito Federal	298,235	1,035,758	-737,523
Campeche	34,459	24,697	9,762	Durango	41,148	82,359	-41,211
Chihuahua	118,079	40,146	77,933	Guerrero	46,617	120,236	-73,619
Colima	31,103	18,356	12,747	Hidalgo	66,964	85,909	-18,945
Guanajuato	98,419	94,976	3,443	Michoacán	105,602	121,134	-15,532
Jalisco	178,011	138,366	39,645	Nayarit	35,865	38,769	-2,904
México	786,367	271,421	514,946	Oaxaca	73,892	138,780	-64,888
Morelos	91,227	39,613	51,614	Puebla	125,686	139,132	-13,446
Nuevo León	113,844	66,247	47,597	San Luis Potosí	64,399	77,650	-13,251
Querétaro	67,857	29,264	38,593	Sinaloa	82,811	105,330	-22,519
Quintana Roo	92,810	18,969	73,841	Tabasco	47,815	54,412	-6,597
Sonora	72,121	53,840	18,281	Veracruz	163,586	236,281	-72,695
Tamaulipas	115,296	75,599	39,697	Yucatán	38,364	47,384	-9,020
Tlaxcala	35,858	25,028	10,830	Zacatecas	36,554	68,784	-32,230
Total	2,129,454	966,018	1,163,436	Total	1,339,054	2,502,490	-1,163,436

Source: Census of Mexico 1990.

THE MEXICO CITY METROPOLITAN AREA (ZMCM)¹

Despite the recent decline in the annual growth rate, which went from 5% between 1940 and 1970 to 2% between 1980 and 1990, despite the doubts expressed about the quality of 1980 Census data, the population of the ZMCM will rise to over 20 million by the turn of the century from its current 17 million, which is equal to the total population of the 25 CMAs in Canada.

It covered 500 km² in 1940; in 1990, its area was 4,450. It corresponds more or less to an almost continuous stretch of built-up area forming a square with sides 70 km long, or a circle 240 km in circumference, an area that would take 4 hours to cross at an average speed of 70 km/h.

After using up almost all the area of the Federal District by 1950, the city spread out to include 27 "municipios" in the state of Mexico. Although it has always been a large city (60,000 inhabitants at the time of the Spanish conquest, 350,000 at the turn of the century), its most spectacular development has taken place during the 20th century. In light of the growth of the country's population as a whole, that of Mexico City is extraordinary since, as in all developing countries, the main city (usually the capital) and a few other cities not only have natural growth rates identical to that of the country itself, but also benefit from significant positive internal migration in addition to annexing surrounding areas. The result in the case of Mexico is that it accounted for 8.4% of the country's population in 1940, 14.7% in 1960 and 18.6% in 1990.

As in the case of all large cities, the central area, through a complex but nevertheless well recognized process, tends to lose population to the peripheral areas.

The future

The 1980 overestimate of the population (by about 1 million) has sparked considerable controversy regarding population projections. However, with weak hypotheses on fertility and migration, Mexico City will have a population of 19 million in 2000 and 25 million in 2020. Stronger hypotheses on fertility and migration would give it 21 million in the year 2000.

Mexico City has always been the centre of economic activity, not only of the region but of the entire country. Half of the products manufactured in Mexico are produced in Mexico City. With a work force of 5.1 million, it is one of the largest labour markets in the world. The work force of Canada as a whole is barely over 12 million.

The inevitable aging of the population, which has already begun, will initially bring a major increase in the potential labour force of the ZMCM. Persons aged 15 to 64 should represent 70% of the 25 million population expected by the year 2020, a total of 17.5 million people.

The manufacturing sector is declining in the city (accounting for only 1.1% of the labour force in 1990), as is the marketing sector (33.3%), while the service sector is growing (65.6%). A current census of jobs ranked the various categories, in descending order of importance, as follows: industrial (29.4%), public service and clerical (19.7%), sales and itinerant vendors (15.3%), and professional and technical (14.2%). Despite reassuring official statistics, which show unemployment at 3%, underemployment is on the rise and jobs in the "informal" sector increased (from 34% in 1981 to 40% in 1987).

According to the 1989 National Survey on Urban Employment, 20% of the working population failed to earn the minimum wage, 54% earned somewhere between the minimum wage and twice that figure, and only 6% earned over five times the minimum wage.

The fact that many elements give the population of Mexico City a favoured status compared to that of the rest of the country does not mean that its standard of living is high. By international standards, it is one of the lowest of all major cities worldwide.

¹ Based on Camposortega-Cruz, in "La zona metropolitana de la ciudad de Mexico", CONAPO, December 1992.

For a population of 70.5 million aged five and over at the end of the period, this figure (3.5 million people), which considerably under-estimates the number of movements, results in a ratio of 5%. This figure is impressive since in Canada, a country known for the high mobility of its population, similar calculations for the same period yield a ratio of 4%.

It is not within the scope of demography to describe the reasons why some states gain and others lose, and these reasons vary too widely to be easily summarized. We will thus confine ourselves to noting the gains made by the State of Mexico and losses by the Federal District which, as we will see, are closely linked, and the significant gains by the State of Baja California, which appears to be expanding.

It is more interesting to look at the origin/destination matrix of places of residence at the time of the 1990 Census and that of five years earlier. This matrix enables us to identify migratory flows and determine their size. Thirty-two states produced 992 flows ($32 \times 32 - 32$), 77 of them involving more 10,000 people (Tables 25 and A, B and C in the Appendix).

Among those states in which remarkable changes in population were noted, we should mention the Federal District, which lost 31 cases out of 32 in the exchange, but experienced the greatest losses with the state of Mexico (see Insert No. 2). This is in fact a consequence of growth in Mexico City. Not only does the city grow beyond the limits of the state in which it is located, it also moves population from the centre (in the Federal District) to the periphery (an example would be the State of Mexico). The State of Mexico does, however, gain in half of its exchanges (17/32). The state of Baja California gained in the main movements of population, most of which affected the Pacific Coast. The states where the two other metropolises are located (Jalisco for Guadalajara and Nuevo Leon for Monterrey) gained in major exchanges with neighbouring states.

Urban population, rural population

Movements of population are, for the most part, due to rural migration and thus do not show up as part of movements between states. A more detailed analysis is thus needed.

In 1960, Mexico had 256 communities of over 10,000 inhabitants which were home to over 12 million people out of a total population of nearly 35 million (Table 26). The Mexico of 1990 had 613 cities with a population of over 10,000, containing 49 million people, and the total population of the country was 81 million. *It is thus clear that cities and the urban population increased more rapidly than the total population.* Looking at the other side, in 1990, 23 million Mexicans were considered rural, that is, living in communities of less than 2,500 inhabitants (an average of 151 per community), whereas in 1960 half of the total of 35 million lived in 88,000 villages of under 2,500 residents (average population of 198).

Table 26. Population Distribution by Size of Agglomeration, Mexico, 1960-1990

	Locality (in numbers)				Locality (in percent)			
	1960	1970	1980	1990	1960	1970	1980	1990
Total	89,612	97,580	125,300	156,602	100.00	100.00	100.00	100.00
1 - 99	51,555	55,650	78,806	108,307	57.53	57.03	62.89	69.16
100 - 499	27,098	28,055	31,054	32,244	30.24	28.75	24.78	20.59
500 - 999	6,156	7,473	8,473	8,515	6.87	7.66	6.76	5.44
1,000 - 2,499	3,342	4,232	4,836	4,950	3.73	4.34	3.86	3.16
2,500 - 4,999	865	1,201	1,147	1,364	0.97	1.23	0.92	0.87
5,000 - 9,999	340	539	513	609	0.38	0.55	0.41	0.39
10,000 - 14,999	72	103	171	197	0.08	0.11	0.14	0.13
15,000 - 19,999	74	145	77	96	0.08	0.15	0.06	0.06
20,000 - 49,999	69	114	119	167	0.08	0.12	0.09	0.11
50,000 - 99,999	24	34	33	55	0.03	0.03	0.03	0.04
100,000 - 499,999	14	30	52	77	0.02	0.03	0.04	0.05
500,000 and over	3	4	19	21	0.00	0.00	0.02	0.01
Percentage (by category)								
Total	34,923,129	48,225,238	66,846,833	81,249,645	100.00	100.00	100.00	100.00
1 - 99	1,558,268	1,471,154	1,888,882	2,190,339	4.46	3.05	2.83	2.70
100 - 499	6,410,224	6,889,077	7,544,871	7,760,320	18.36	14.29	11.29	9.55
500 - 999	4,253,855	5,190,166	5,886,009	5,922,495	12.18	10.76	8.81	7.29
1,000 - 2,499	4,995,664	6,366,285	7,227,342	7,416,770	14.30	13.20	10.81	9.13
2,500 - 4,999	2,959,460	4,129,872	4,092,168	4,647,566	8.47	8.56	6.12	5.72
5,000 - 9,999	2,366,431	3,764,208	3,527,104	4,226,294	6.78	7.81	5.28	5.20
10,000 - 14,999	881,000	1,324,000	2,075,770	2,410,451	2.32	2.75	3.11	2.97
15,000 - 19,999	1,146,511	2,085,846	1,331,710	1,675,566	3.28	4.33	1.99	2.06
20,000 - 49,999	2,108,551	3,405,818	3,596,371	5,075,188	6.04	7.06	5.38	6.25
50,000 - 99,999	1,730,933	2,356,569	2,337,699	3,854,850	4.96	4.89	3.50	4.74
100,000 - 499,999	2,346,360	5,707,130	11,352,926	18,233,313	6.72	11.83	16.98	22.44
500,000 and over	4,165,872	5,535,113	15,985,981	17,836,493	11.93	11.48	23.91	21.95

Sources: Censuses of Mexico, 1960, 1970, 1980, 1990.

Table 27. Changes in Urban and Non-urban Population, Mexico, 1960-1990

Year	Population			Percentage		Growth (per 1,000)		
	Total	Town larger than 15,000	Town smaller than 15,000	Town larger than 15,000	Town smaller than 15,000	Total	Town larger than 15,000	Town smaller than 15,000
1960	34,923,129	11,568,227	23,354,902	33.12	66.88	...	...	...
1970	48,225,238	19,090,476	29,134,762	39.59	60.41	38.09	65.03	24.75
1980	66,846,833	34,604,687	32,242,146	51.77	48.23	38.61	81.27	10.67
1990	81,249,645	46,675,410	34,574,235	57.45	42.55	21.55	34.88	7.23

Sources: Censuses of Mexico 1960, 1970, 1980 and 1990.

During this time, *the number of cities with population over 1 million rose from 1 to 4 and cities of over 100,000 inhabitants, from 17 to 98, while the population of cities of over 100,000 habitants rose from 18.7% to 44.4% of the total.*

If the urban population is restricted to that living in communities of over 15,000 inhabitants, the increase in the urban population, which was 65% between 1960 and 1970, speeded up from 1970 to 1980 (81%) but slowed down considerably during the 1980s (35%) (Table 27).

The rural population not only remained large, it was also unequally distributed (see Table 28). The Gulf and South Pacific regions have remained quite rural (45% and 56%), while the centre and northeast have been highly urbanized. However, these very rural regions form a rather small proportion of the national total (9.5% and 10.9% respectively).

Table 28. Percentage of Rural Population (Living in Agglomerations Smaller than 2,500 inhabitants), by Region, Mexico, 1990

Region	% of Rural Population	Weight of the Region in the Country
Mexico	28.7	100.0
North-East	14.5	6.6
Center	19.9	33.3
North-West	24.3	2.9
South-East	25.0	8.4
Occidental Region	28.8	17.2
North	33.1	11.1
Gulf Region	45.1	9.5
South Pacific	56.4	10.9

Source: Author's calculations, based on Census of Mexico 1990.

Table 29. Urban Population (in Thousands) by Size of City, Percentage of the Urban Population and Growth, Mexico, 1960-1990¹

Year	Urban Total	15,000 to 19,999	20,000 to 49,999	50,000 to 99,999	100,000 to 499,999	500,000 to 999,999	1,000,000 and over
1960:							
Population	14,382	559	1,271	1,956	3,591	1,596	5,409
Percentage	100.0	3.9	8.8	13.6	25.0	11.1	37.6
Cities	119	32	41	26	17	2	1
Urban Population (%)	41.2						
1970:							
Population	23,828	707	1,950	1,510	7,284	732	11,645
Percentage	100.0	3.0	8.2	6.3	30.5	3.1	48.9
Cities	166	41	65	21	35	1	3
Urban Population (%)	49.4						
1980:							
Population	37,584	1,010	2,876	1,633	10,230	2,553	19,282
Percentage	100.0	2.7	7.7	4.3	27.2	6.8	51.3
Cities	229	59	94	24	44	4	4
Urban Population (%)	56.2						
1990:							
Population	49,391	1,378	4,073	2,769	11,765	7,521	21,885
Percentage	100.0	2.8	8.3	5.6	23.8	15.2	44.3
Cities	315	79	134	39	48	11	4
Urban Population (%)	60.8						

¹ Localities of 15,000 and over.

Source: Garza, Gustavo (1992). Crisis Económica y Desarrollo Urbano, *Demos*, Mexico, p. 15.

The most striking fact is the coexistence of a still fairly large rural Mexico and an urban Mexico concentrated in a few very large cities. Fifteen cities of over 500,000 account for 29.41 million people, or 35% of the country's population, with Mexico City alone accounting for approximately 15 million. This macrocephalic configuration of the urban network is considered detrimental to the development of a country which needs more cities of intermediate size, which are now fortunately beginning to develop. It was as if Mexico, like many developing countries, had skipped some stages in the urbanization process. Briefly but simply, we might say that settlement of population in industrialized countries has become contracted over time by the slow, concomitant effect of technical development, into cities that are ranked by their size and their commercial, administrative and industrial capabilities. They are organized in networks and linked to one another by dependent relations. These networks have only slowly become simplified and with this trend, as is becoming increasingly clear, they form urban zones which concentrate the great majority

of the country's population and marginal areas that are inevitably deserted. *In Mexico the population changed abruptly from basically rural to high concentration in a few huge cities with an under-representation of large- and medium-sized cities.*

Table 29 from Gustavo Garza⁶³ gives an excellent summary of the recent trend towards urbanization, and shows how, following strong concentration, there is now a return to a more balanced urban network for the level of development of the country. In 1990 the population in the various categories of cities was more regular than in previous years. In 1980, four cities of over 1 million inhabitants shared 51% of the urban population, while in 1990 they had only 44%. At this time as well, four cities with populations of 500,000 to 1 million had a combined population of 2.55 million while in 1990, 11 cities of this size contained 7.52 million people.

National Population Council geographers and demographers have developed highly elaborate models⁶⁴ to assess the potential for regional development to allocate resources in an attempt to harmonize demographic and economic development at the local level and distribute rural emigration more rationally. But it is probable that these models will be implemented slowly and that the problems of huge cities like Mexico City will take some time to subside.

POPULATION AND WORKFORCE

The workforce is directly related to demographic changes. It is normally studied by economists. Since their analyses and projections are most often considered from the standpoint of job supply and less often from that of demand, the connection with demography is even closer. In this brief overview, we shall look only at recent changes in participation rates.

It might be useful to reiterate here the caution expressed earlier concerning the quality of data sources. For the purposes of the Mexican census, the labour force is held to be made up of people 12 years old and over who are in the job market, both working and non-working. Working individuals were those who, during the qualifying week, performed some economic activity in exchange for wages or another type of remuneration, whether in money or in kind, and non-working people were those who did not have work but were actively seeking work. In all countries, surveys on employment and the labour force yield figures that often differ from those obtained by census. Due to the specific nature of each of these sources, there may be differences between the two series of data;

⁶³ Gustavo Garza. Crisis economica y desarrollo urbano, DEMOS. 1992. ISSN 0187-7550.

⁶⁴ Augustin E. Ibarra. "Programa de trabajadores agricolas temporales mexicanos al Canada," in Migracion internacional en las fronteras norte y sur de Mexico, CONAPO 1992.

however, in Canada, these differences are not as significant as in Mexico. We must therefore be cautious in drawing conclusions, and in particular avoid making overly detailed comparisons between Canada and Mexico.

Male labour force

Mexicans start working early in life, and the minimum age for entering the labour force has been set at 12. In the 1990 Census, 11.1% of boys 12 to 14 were in the labour force (in the essentially rural states of Chiapas and Michoacan, the figures were 22% and 17.4%, respectively) (Figure 12). *At the other end of the life cycle, men remain in the labour force until relatively advanced ages. In the same 1990 Census, the participation rate in the 65 and over age group was 45.9% (61.6% in Chiapas and Quintana Roo).* In the 1970 Census, the figures were higher in both cases. It is worth noting that, in 1960, children of 8 were part of the labour force. This change over time in the ages at which people enter and leave the labour force is classic, and exists or has existed in all countries. It corresponds in part to the rising level of education, which keeps young people out of the labour force until increasingly later ages, and to social progress which brings an improvement in the standard of living and allows people to retire increasingly early.

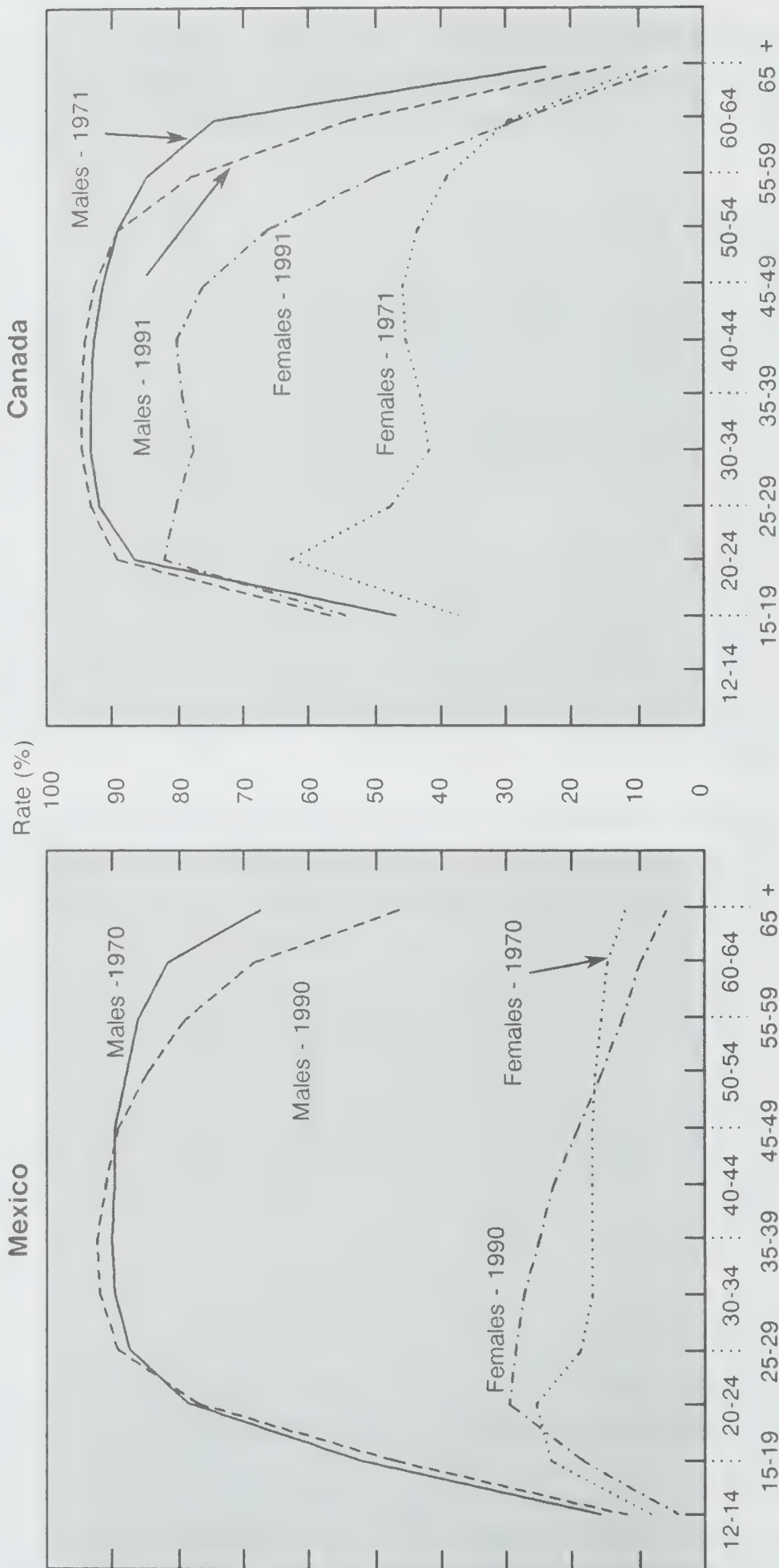
A comparison with Canada confirms the validity of this pattern. Since Canada is much more developed, people begin working later and leave the work force earlier (Table E in Appendix). Participation rates for adults are slightly higher in Canada than in Mexico.

Variations between the different regions of Mexico are not significant, although they are much greater than in Canada (Table A7 in the Appendix). At most, the farming regions (Southeast and Gulf regions) stand out with slightly higher participation rates, due to the fact that people tend to work longer in agriculture, where wage-earners represent only a minute fraction of the work force. Between 1970 and 1990, however, the trend described above was already observable.

Female labour force

Female participation rates are low in Mexico compared with those in Canada (Figure 12), but they too are changing with time. Rates for adults have increased, while those for young people and the elderly are clearly lower. The probable causes are no doubt the same as those advanced for the male rates; however, the fact remains that the increases in adult participation rates have been much greater than the decreases for younger and older workers, resulting in a high female participation rate for all ages combined.

Figure 12
Participation Rates by Age Group and Sex, Mexico for 1970 and 1990 and Canada for 1971 and 1991



Sources: Mexico: Censuses 1970 and 1990.
Canada: Special tabulation.

Table 30. Main Characteristics of the Active Population of Mexico, 1970-1990

Year	Female Activity Rate				Male Activity Rate (Aged 12 and Over)	Percentage of Workers Not Remunerated ¹
	Aged 12 and Over	15-19	20-24	25-34		
1970	17.6	23.1	25.0	17.8	70.1	31.6
1979	21.5	..	33.4	27.3	71.3	33.7
1982	25.2	..	..	..	71.9	30.6
1987	31.1	24.4	42.3	41.5	73.5	33.2
1988	32.3	29.7	42.8	42.8	75.3	36.8
1989	27.0	..	..	..	72.8	30.0
1990	19.6	18.0	29.1	27.7	68.0	25.9

¹ Under the heading of unpaid workers are independant workers and families without income. In the case of the 1982 National Demographic Survey, this heading also includes the employers.

Source: Garcia, Brigida (1992). *La feminización en la Actividad Económica, Demos*, Mexico, p. 24.

Regional distributions reveal an interesting phenomenon. Whereas in 1970 only the central region showed an increase due to the highly developed service industry in Mexico City, in 1990 comparable rates were observed in the northwest and northeast regions. It is difficult not to link these high rates to the recent proliferation, at the United States border, of assembly plants, or "maquiladoras."

It is highly likely that, in the near future, female participation in the work force will increase for at least two types of reasons. The first is strictly demographic: later marriage and reduced fertility due to contraception. The second is linked to the economy: development of services and reduction of time worked by individuals through fragmentation of jobs (into a broader range of low-paid part-time work), not to mention the increase in education levels.

To what extent do employment or unemployment rates based on census data reflect the true situation? Obviously, no country can guarantee that the image thus obtained is completely accurate, but there are several good reasons for caution with respect to Mexico. Since social programs are relatively undeveloped and unemployment insurance is a rare phenomenon, a considerable segment of economic activity goes unaccounted for. These many temporary and precarious activities form what is known as the "informal" economy, which is not fully reflected in census data. Such activity is especially prevalent among women: not only do they often work only part time or occasionally, but they are more easily hired to work on a temporary basis.⁶⁵ In Mexico, the results of surveys do not correspond to data obtained by census and in fact show much larger upward trends⁶⁶ (Table 30). It is thus possible that information obtained in survey interviews is more accurate than that obtained by census.

⁶⁵ Brigida Garcia. *Fuerza de trabajo: Aumenta el trabajo de actividades economicas de pequena escala*, Demos, 1988, and José Luis Lezama. *La economia subterranea y el trabajo: Novedades del desarrollo actual del capitalismo*, Demos, 1990.

⁶⁶ Brigida Garcia. *La feminization en la actividad economica*. Demos 1992.

INDIGENOUS POPULATIONS

No data exist to enable the indigenous populations of Canada and those of Mexico to be compared. While indigenous populations per se have a legal existence in Canada, those of Mexico do not. And in Mexico, ethnicity apparently has been deemed too complex a criterion to yield a census definition that would result in an accurate count and language is the only basis for an analysis.

In neither country (Canada or Mexico) are native languages an indication of common cultural background. In the case of Mexico, certain languages are the remnants of civilizations that had attained high levels of demographic, administrative and social development and have left impressive architectural vestiges. Others, both in Mexico and in Canada, failed to achieve greatness for various reasons such as, problems linked to geography, climate, internal forces, marginalization. Whatever the case, the indigenous peoples of Mexico, which were at one point in history quite numerous, were subjected to both internal strife and the Spanish conquest, and thus were weakened, dispersed, culturally depleted and mingled with the conquerors throughout the area of present day Mexico. For the moment, it seems that the only way to evaluate the number of Mexicans of Amerindian origin is to count those who know a native language.

In Canada, settlement of the land by the French and English led to a large number of treaties and agreements in which were stipulated the land concessions granted to the first peoples, who negotiated the rights and privileges retained. This is not the case in Mexico, where intermarriage has always been encouraged and there is only one kind of citizen: Mexican.

The short description of the indigenous population which follows will thus be based on the knowledge of an indigenous language.

The 1990 Census of Mexico counted 5.28 million people over age five who spoke an indigenous language, to which might be added 1.13 million children under five living in households where the head of the household spoke an indigenous language. Together they represent 7.9% of the Mexican population (Table 31).⁶⁷ In Canada, the number of people who are identified as aboriginal has varied over time, depending both on statistical and legislative considerations. According to the 1991 postcensal survey, the number of persons who consider themselves to be aboriginal is approximately half a million (625,710) or 2.2% of the Canadian population. Over one million Canadians (3.6% of the total population) report at least some aboriginal ancestry. Neither of these figures can be compared directly with the Mexican figures since they do not cover the same situation.

⁶⁷ Table 39 gives some figures for Canada which allow us to make superficial comparisons.

**Table 31. Main Native Languages Spoken in Mexico, 1990
(more than 200,000 people)¹**

Language	Number	%	Cumulated %	Speaking Spanish	% of the Language
Nahuatl	1,197,328	22.67	22.67	967,910	80.84
Maya	713,520	13.51	36.17	647,453	90.74
Mixteco	383,544	7.26	43.44	286,009	74.57
Zapoteco	380,690	7.21	50.64	331,578	87.10
Otomi	280,238	5.31	55.95	251,522	89.75
Tzeltal	261,084	4.94	60.89	157,552	60.35
Tzotzil	229,203	4.34	65.23	137,175	59.85
Totonaca	207,876	3.94	69.16	159,001	76.49
Partial Total	3,653,483	69.16	69.16	2,938,200	80.42
Others	1,403,004	26.56	95.72	1,105,400	78.79
Not Specified	225,860	4.28	100.00	194,352	86.05
Total	5,282,347	100.00	100.00	4,237,952	80.22

¹ Aged 5 and Over.

Source: Census of Mexico 1990.

**Table 32. Population Aged 5 and Over, Speaking a Native Language by Type
of Language and Knowledge of an Official Language,
Canada, 1990**

Language	Speaking a Native Language	Knowledge of an Official Language	Percentage
Total Canada	100,560	85,200	84.73
Algonquian Languages n.i.e.	3,915	3,250	83.01
Amerindian Languages n.i.e.	570	515	90.35
Athapaskan Languages n.i.e.	4,505	3,930	87.24
Blackfoot	1,650	1,610	97.58
Carrier	720	680	94.44
Chilcotin	515	495	96.12
Chipewyan	860	765	88.95
Cree	43,545	39,325	90.31
Dakota	2,145	2,050	95.57
Dogrib	1,415	1,150	81.27
Inuktitut	16,815	12,405	73.77
Micmac	3,840	1,395	36.33
Montagnais-Naskapi	5,985	5,240	87.55
Ojibway	10,885	9,515	87.41
Salish Languages	495	485	97.98
South Slave	1,860	1,585	85.22
Wakashan Languages	595	580	97.48
Other Native Languages	245	225	91.84

Source: Census of Canada 1991, unpublished data.

Table 33. Percentage of Population Speaking a Native Language and Percentage of the Native Population Who Do Not Speak Spanish, Population Aged 5 and Over, Selected Mexican States, 1990

State	Population Speaking a Native Language	Native Population Who Do Not Speak Spanish	Prevailing Native Languages (in number)			
			First		Second	
Yucatán	44.2	3.5	Maya	512,518	Mixteco	237,474
Oaxaca	39.1	7.4	Zapoteco	319,000		
Quintana Roo	32.2	2.7	Maya	120,846		
Chiapas	26.4	8.0	Tzeltal	258,153	Tzotzil	226,681
Hidalgo	19.5	3.3	Nahuatl	188,530	Otomi	117,393
Campeche	19.0	1.2	Maya	70,247		
Puebla	14.1	2.1	Nahuatl	362,966		
Guerrero	13.4	3.9	Nahuatl	116,131	Mixteco	80,691
San Luis Potosí	11.9	1.2	Nahuatl	122,664		
Veracruz	10.7	1.4	Nahuatl	294,711	Totonaca	111,305

Source: Census of Mexico 1990.

Mexican populations “speaking an indigenous language” are mainly located in the southern and central areas of the country. It is in this part of Mexico that the great civilizations of the past flourished, and where the highest density of pre-colonial Central American populations have always been concentrated.

If we use the definition of the term “language” given by linguists, there are 68 aboriginal languages spoken in Mexico in addition to dialects (compared to a little over 25 aboriginal linguistic groups or languages in Canada).

Nevertheless, 70% of the population aged five and over speaking an indigenous language speak one of the eight major languages (50% for the first four). *The majority of those who speak an indigenous language also speak Spanish (80.2%).*

The states where more than one indigenous language is spoken, as a percentage of the population, are listed in Table 33.

Nahuatl is spoken mainly on the Atlantic coast and in the central region of Mexico, Maya in the south, and Mixteco in the two Baja Californias, Guerrero and the southwest.

Table 34. Distribution of Population Speaking a Native Language (in %), by Age Group, Mexico, 1990

Age Group	Percentage
5-9	14.0
10-14	13.3
15-19	11.2
20-24	9.5
25-29	8.7
30-34	7.4
35-39	7.4
40-44	5.7
45-49	5.4
50 +	17.5

Source: Census of Mexico 1990.

Based on published census data, knowledge of an indigenous language decreases with age at least up to age 50 (Table 34). (A detailed table by language, not published here, shows that there is little difference between the various languages.) But this statistic alone is not enough for us to draw a conclusion regarding the viability of these languages, since the *answers to census and survey questions on language knowledge may be unreliable. People who speak an indigenous language are often discredited and will thus not give this information to an interviewer.*

If we admit that a language already spoken may be lost, we may then conclude that progress in education, urbanization and the increase in participation rates are responsible for the declining knowledge of indigenous languages as age increases. If not, since we are looking at the percentage of an age class, this might also mean that knowledge of an indigenous language increases with time: as the fraction of a group speaking an indigenous language is higher in the more recent cohort groups. Table 35 indicates a regression of indigenous languages. There is no mortality and/or differential migration which might justify such differences in reductions in total population and that speaking an indigenous language. One must thus conclude that the ability to speak an indigenous language is lost with age – a conclusion somewhat surprising.

Geography of indigenous languages

A recent study by the Center of Studies in Population and Health (CEPS) based on census data focuses on “ethnic group” based on knowledge of an indigenous language.⁶⁸

After reviewing all the “municipios” of the country, the study observes that, in 542 out of 2,402, over 40% of the population speaks one of the indigenous languages. These 542 “municipios” form a universe of 5.34 million people of whom 4 million, or 75.5%, speak an indigenous language. In this universe, the languages most commonly spoken are not the same as those in the census universe. In descending order of importance, they are Nahuatl, Maya, Tzeltal, Mixteco, Zapoteco, Totzil, Mazateco, Totonaca and Otomi.

⁶⁸ Diversidad étnica y lenguas indígenas predominante hablada en México. Working Paper. Centro de estudios en Población y salud. México 1992.

Table 35. Changes in Total Population and in Population Speaking a Native Language Between 1980 and 1990, a Cohort Perspective

	1980		1990		Loss in %
	Age Group	Population	Age Group	Population	
Total Speaking a Native Language	5-9	10,283,955 694,564	15-19	9,664,403 589,431	-6.0 -15.1
Total Speaking a Native Language	10-14	9,094,351 644,198	20-24	7,829,163 503,288	-13.9 -21.8
Total Speaking a Native Language	15-19	7,656,539 584,461	25-29	6,404,512 457,149	-16.4 -21.8
Total Speaking a Native Language	20-24	6,154,527 527,910	30-34	5,387,619 390,824	-12.5 -26.0
Total Speaking a Native Language	25-29	4,804,392 484,776	35-39	4,579,116 389,157	-4.7 -19.7
Total Speaking a Native Language	30-34	3,838,059 392,838	40-44	3,497,770 300,568	-8.9 -23.5
Total Speaking a Native Language	35-39	3,406,934 391,982	45-49	2,971,800 287,254	-12.8 -26.7

Sources: Census of Mexico 1980 and 1990.

Table 36. Distribution by State of Municipalities Where at Least 40 % of the Population Speaks a Native Language, Mexico

State	Number of Municipalities	Total Population of Municipalities	Population Speaking a Native Language
Campeche	3	93,286	63,049
Chiapas	37	913,812	747,799
Chihuahua	3	58,839	31,964
Durango	1	23,663	15,989
Guerrero	17	304,586	238,530
Hidalgo	19	463,659	312,340
Jalisco	1	14,037	8,031
México	1	49,288	25,283
Michoacán	4	85,743	39,902
Nayarit	1	20,909	16,619
Oaxaca	262	1,179,275	965,174
Puebla	52	494,449	375,594
Quintana Roo	3	88,173	69,829
San Luis Potosí	13	338,847	215,788
Veracruz	38	554,044	428,173
Yucatán	87	661,030	480,962
Total	542	5,343,640	4,035,026

Source: De La Vega, Sergio (1992). *Diversidad Etnica y Lenguas Indígenas Predominantemente Habladas en México*, CEPS, Mexico, p. 5.

Ethnic pockets are concentrated in Oaxaca (262 municipios), Yucatan (87), Puebla (52), Veracruz (38), Chiapas (37) (Table 36). It was not possible, however, to establish a correlation between socioeconomic indicators and ethnic criteria of the geographical entities chosen. Another analysis in the same study⁶⁹ concludes, on the other hand, that there is a parallel with illiteracy, lack of schooling, poor housing and basic sanitary conditions, high fertility and high infant mortality.

In conclusion

Clearly we are only beginning to understand the socioeconomic development of ethnic minorities in Mexico (to the extent that these may be determined by knowledge of an indigenous language). Migratory movements, differential natality and mortality, assimilation, etc., must all be investigated before subscribing to simplistic and possibly erroneous conclusions on the social demography of ethnic minorities.

⁶⁹ Elementos para una caracterización socioeconómica de la población indígena en México. Working Paper. CEPS 1992.

CONCLUSION

Mexico's roots reach far back into the past. It has seen many civilizations rise and fall. Over the centuries, its population has experienced the gradual and sometimes erratic growth common to countries into which the advances of sciences have penetrated only slowly. It then made a rapid demographic transition and found itself propelled overnight into the modern world, with a population of 85 million and a potential for growth, it is only beginning to learn how to master. Even though the French economist Montchrétien's statement that "the only real power is people" is no longer accepted without reservations, the fact remains that history abounds in examples of peoples which have experienced periods of great prosperity due to rapid demographic expansion. The most reliable projections indicate that the Mexican population will continue to rise for some years to come, and that there will be corresponding growth in its labour force, which will become increasingly better qualified as development progresses.

This growth will no doubt not be confined to that country alone, but will take place at the very least within a North American context. The whole history of the human race – and North America is a striking example of this – has been marked by innumerable movements and exchanges of population, and the recent period has seen an acceleration of these age-old trends throughout the world. It is thus realistic to assume that the already significant exchanges of population between Mexico and the remainder of the continent will continue, at least in the short term. The Mexican population will generate a considerable demand for employment during the next decade or so, and many analysts question whether this demand can be satisfied. If the jobs currently being created are high-productivity jobs and if markets do open for their production, then Mexico could become a leading economic power with a high standard of living. If, on the other hand, jobs are not created, Mexican workers will be forced to attempt to negotiate their existence with the rest of North America to an even greater extent than one of the present. The current situation, with its changing relationships, can be viewed simply as one of the most constructive forms of North-South dialogue, forced into existence under the increasing pressure of demographic phenomena. The challenge will be to raise the standard of living of a growing population without reducing that of neighbouring populations so as to maintain harmony in that part of the world.

This situation is characteristic of both the short and medium terms, since very large birth cohorts will continue to be produced in Mexico for some time. But the demographic process is ineluctable, and even before growth in Mexico has culminated, the aging of its population is beginning to be a source of concern for demographers and sociologists alike. When the last large female birth cohorts have given birth to all their children, the birth cohorts that follow, smaller and with lower fertility rates, will quickly reduce the number of births from one year to another. The country will then enter an aging process characterized by an

amplitude and speed commensurate with the success of its actual birth control policy, raising problems that may be even more difficult to resolve than those posed by its current rapid growth. Although far from being an area of concern today, this process has nevertheless begun with the drastic decline in fertility. Aging, in all probability, will in any case be greater, from a strictly mathematical standpoint, than a first glance would indicate. While the very large birth cohorts are alive, scientific progress will advance and ensure a greater number of years of life, thus increasing the weight of an aging population in a social fabric which will contain increasingly fewer young people.

Mexico is thus destined to be an increasingly present element in the lives of Americans and Canadians. Although further along the development path, Canada and the U.S. will nevertheless share in Mexico's progress and benefit from its achievements. Communications of all types will inevitably increase, bringing greater opportunities for population exchanges and enriching all the cultures involved.

Appendices

Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990

States (Capitals)	Population				Distribution in %			
	1960	1970	1980	1990	1960	1970	1980	1990
United States of Mexico ^a	34,923,129	48,225,238	66,846,833	81,249,645	100.00	100.00	100.00	100.00
North-Eastern Region	2,103,030	3,151,547	4,437,528	5,348,317	6.02	6.54	6.64	6.58
Nuevo León (Monterrey)	1,078,848	1,694,689	2,513,044	3,098,736	3.09	3.51	3.76	3.81
Tamaulipas (Ciudad Victoria)	1,024,182	1,456,858	1,924,484	2,249,581	2.93	3.02	2.88	2.77
Central Region	10,825,170	15,931,701	23,533,883	27,073,577	31.00	33.04	35.21	33.32
Distrito Federal ^a	4,870,876	6,874,165	8,831,079	8,235,744	13.95	14.25	13.21	10.14
Hidalgo (Pachuca)	994,598	1,193,845	1,547,493	1,888,366	2.85	2.48	2.31	2.32
México (Toluca)	1,897,851	3,833,185	7,564,335	9,815,795	5.43	7.95	11.32	12.08
Morelos (Cuernavaca)	386,264	616,119	947,089	1,195,059	1.11	1.28	1.42	1.47
Puebla (Puebla)	1,973,837	2,508,226	3,347,685	4,126,101	5.65	5.20	5.01	5.08
Querétaro (Querétaro)	355,045	485,523	739,605	1,051,235	1.02	1.01	1.11	1.29
Tlaxcala (Tlaxcala)	346,699	420,638	556,597	761,277	0.99	0.87	0.83	0.94
South Pacific Region	4,124,852	5,181,837	6,563,306	8,850,693	11.81	10.75	9.82	10.89
Chiapas (Tuxtla Gutiérrez)	1,210,870	1,569,053	2,084,717	3,210,496	3.47	3.25	3.12	3.95
Guerrero (Chilpancingo)	1,186,716	1,597,360	2,109,513	2,620,637	3.40	3.31	3.16	3.23
Oaxaca (Oaxaca)	1,727,266	2,015,424	2,369,076	3,019,560	4.95	4.18	3.54	3.72
Gulf Region	3,224,239	4,583,749	6,450,641	7,729,983	9.23	9.50	9.65	9.51
Tabasco (Villahermosa)	496,340	768,327	1,062,961	1,501,744	1.42	1.59	1.59	1.85
Veracruz (Xalapa)	2,727,899	3,815,422	5,387,680	6,228,239	7.81	7.91	8.06	7.67

See notes at the end of this table.

Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 - Continued

States (Capitals)	Population				Distribution in %			
	1960	1970	1980	1990	1960	1970	1980	1990
North-Western Region	2,613,470	3,907,719	5,482,755	6,830,922	7.48	8.10	8.20	8.41
Baja California (Mexicali)	520,165	870,421	1,177,886	1,660,855	1.49	1.80	1.76	2.04
Baja California Sur (La Paz)	81,594	128,019	215,139	317,764	0.23	0.27	0.32	0.39
Nayarit (Tepic)	389,929	544,031	726,120	824,643	1.12	1.13	1.09	1.01
Sinaloa (Culiacán)	838,404	1,266,528	1,849,879	2,204,054	2.40	2.63	2.77	2.71
Sonora (Hermosillo)	783,378	1,098,720	1,513,731	1,823,606	2.24	2.28	2.26	2.24
Western Region	6,438,440	8,470,477	11,112,664	13,981,650	18.44	17.56	16.62	17.21
Aguascalientes (Aguascalientes)	243,363	338,142	519,439	719,659	0.70	0.70	0.78	0.89
Colima (Colima)	164,450	241,153	346,293	428,510	0.47	0.50	0.52	0.53
Guanajuato (Guanajuato)	1,735,490	2,270,370	3,006,110	3,982,593	4.97	4.71	4.50	4.90
Jalisco (Guadalajara)	2,443,261	3,296,586	4,371,998	5,302,689	7.00	6.84	6.54	6.53
Michoacán (Morelia)	1,851,876	2,324,226	2,868,824	3,548,199	5.30	4.82	4.29	4.37
Northern Region	4,761,491	5,900,147	7,555,785	9,043,101	13.63	12.23	11.30	11.13
Chihuahua (Chihuahua)	1,226,793	1,612,525	2,005,477	2,441,873	3.51	3.34	3.00	3.01
Coahuila de Zaragoza (Saltillo)	907,734	1,114,956	1,557,265	1,972,340	2.60	2.31	2.33	2.43
Durango (Durango)	760,836	939,208	1,182,320	1,349,378	2.18	1.95	1.77	1.66
San Luis Potosí (San Luis Potosí)	1,048,297	1,281,996	1,673,893	2,003,187	3.00	2.66	2.50	2.47
Zacatecas (Zacatecas)	817,831	951,462	1,136,830	1,276,323	2.34	1.97	1.70	1.57
South-Eastern Region	832,437	1,098,061	1,710,271	2,391,402	2.38	2.28	2.56	2.94
Campeche (Campeche)	168,219	251,556	420,553	535,185	0.48	0.52	0.63	0.66
Quintana Roo (Ciudad Chetumal)	50,169	88,150	225,985	493,277	0.14	0.18	0.34	0.61
Yucatán (Mérida)	614,049	758,355	1,063,733	1,362,940	1.76	1.57	1.59	1.68

See notes at the end of this table.

Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 - Continued

States (Capitals)	Distribution by Region				Average Annual Growth in %				Density km ² 1990
	1960	1970	1980	1990	1960	1970	1980	1990	
United States of Mexico ^a									
North-Eastern Region	100.00	100.00	100.00	100.00	3.23	3.27	1.95	2.81	37.04
Nuevo León (Monterrey)	51.30	53.77	56.63	57.94	4.05	3.42	1.87	3.11	
Tamaulipas (Ciudad Victoria)	48.70	46.23	43.37	42.06	4.52	3.94	2.09	3.52	
					3.52	2.78	1.56	2.62	
Central Region	100.00	100.00	100.00	100.00	3.86	3.90	1.40	3.06	274.90
Distrito Federal ^a	45.00	43.15	37.52	30.42	3.44	2.51	-0.70	1.75	
Hidalgo (Pachuca)	9.19	7.49	6.58	6.97	1.83	2.59	1.99	2.14	
México (Toluca)	17.53	24.06	32.14	36.26	7.03	6.80	2.61	5.48	
Morelos (Cuernavaca)	3.57	3.87	4.02	4.41	4.67	4.30	2.33	3.76	
Puebla (Puebla)	18.23	15.74	14.22	15.24	2.40	2.89	2.09	2.46	
Querétaro (Querétaro)	3.28	3.05	3.14	3.88	3.13	4.21	3.52	3.62	
Tlaxcala (Tlaxcala)	3.20	2.64	2.37	2.81	1.93	2.80	3.13	2.62	
South Pacific Region	100.00	100.00	100.00	100.00	2.28	2.36	2.99	2.54	37.90
Chiapas (Tuxtla Gutiérrez)	29.36	30.28	31.76	36.27	2.59	2.84	4.32	3.25	
Guerrero (Chilpancingo)	28.77	30.83	32.14	29.61	2.97	2.78	2.17	2.64	
Oaxaca (Oaxaca)	41.87	38.89	36.10	34.12	1.54	1.62	2.43	1.86	
Gulf Region	100.00	100.00	100.00	100.00	3.52	3.42	1.81	2.91	79.30
Tabasco (Villahermosa)	15.39	16.76	16.48	19.43	4.37	3.25	3.46	3.69	
Veracruz (Xalapa)	84.61	83.24	83.52	80.57	3.36	3.45	1.45	2.75	

See notes at the end of this table.

Table A1. Population Distribution and Growth of the United States of Mexico and Regions, 1960-1990 - Concluded

States (Capitals)	Distribution by Region				Average Annual Growth in %				Density km ² 1990
	1960	1970	1980	1990	1960	1970	1980	1990	
North-Western Region	100.00	100.00	100.00	100.00	4.02	3.39	2.20	3.20	16.48
Baja California (Mexicali)	19.90	22.27	21.48	24.31	5.15	3.02	3.44	3.87	
Baja California Sur (La Paz)	3.12	3.28	3.92	4.65	4.50	5.19	3.90	4.53	
Nayarit (Tepic)	14.92	13.92	13.24	12.07	3.33	2.89	1.27	2.50	
Sinaloa (Culiacán)	32.08	32.41	33.74	32.27	4.13	3.79	1.75	3.22	
Sonora (Hermosillo)	29.97	28.12	27.61	26.70	3.38	3.20	1.86	2.82	
Western Region	100.00	100.00	100.00	100.00	2.74	2.71	2.30	2.58	78.00
Aguascalientes (Aguascalientes)	3.78	3.99	4.67	5.15	3.29	4.29	3.26	3.61	
Colima (Colima)	2.55	2.85	3.12	3.06	3.83	3.62	2.13	3.19	
Guanajuato (Guanajuato)	26.96	26.80	27.05	28.48	2.69	2.81	2.81	2.77	
Jalisco (Guadalajara)	37.95	38.92	39.34	37.93	3.00	2.82	1.93	2.58	
Michoacán (Morelia)	28.76	27.44	25.82	25.38	2.27	2.11	2.13	2.17	
Northern Region	100.00	100.00	100.00	100.00	2.14	2.47	1.80	2.14	13.80
Chihuahua (Chihuahua)	25.76	27.33	26.54	27.00	2.73	2.18	1.97	2.29	
Coahuila de Zaragoza (Saltillo)	19.06	18.90	20.61	21.81	2.06	3.34	2.36	2.59	
Durango (Durango)	15.98	15.92	15.65	14.92	2.11	2.30	1.32	1.91	
San Luis Potosí (San Luis Potosí)	22.02	21.73	22.15	22.15	2.01	2.67	1.80	2.16	
Zacatecas (Zacatecas)	17.18	16.13	15.05	14.11	1.51	1.78	1.16	1.48	
South-Eastern Region	100.00	100.00	100.00	100.00	2.77	4.43	3.35	3.52	16.90
Campeche (Campeche)	20.21	22.91	24.59	22.38	4.02	5.14	2.41	3.86	
Quintana Roo (Ciudad Chetumal)	6.03	8.03	13.21	20.63	5.64	9.41	7.81	7.62	
Yucatán (Mérida)	73.77	69.06	62.20	56.99	2.11	3.38	2.48	2.66	

^a The Federal District is the capital of Mexico.

Sources: Censuses of Mexico 1960, 1970, 1980, 1990. Statistical Yearbook of Mexico, 1992.

Table A2. Birth and Mortality Rates, Canada and Mexico, 1886-2024 (per 1,000)

Period	Mexico		Canada	
	Birth Rate	Mortality Rate	Birth Rate	Mortality Rate
1886-1896			35.7	
1895-1899	47.3	34.4		
1900-1904	46.5	33.4	36.0	
1905-1909	46.0	32.9		
1910-1914	43.2	46.6	34.4	
1915-1919	40.6	48.3	30.5	
1920-1924	45.3	28.4	28.3	11.6
1925-1929	44.3	26.7	24.3	11.0
1930-1934	44.6	25.6	22.5	10.0
1935-1939	43.5	23.3	20.1	10.4
1940-1944	44.6	22.0	23.5	9.8
1945-1949	45.0	17.0	28.9	9.4
1950-1954	45.1	15.1	27.9	8.7
1955-1959	44.9	12.2	28.2	8.2
1960-1964	44.4	10.4	25.3	7.7
1965-1969	44.3	9.8	18.2	7.4
1970-1974	43.7	8.6	15.9	7.4
1975-1979	36.1	7.8	15.7	7.2
1980-1984	32.6	6.5	15.1	7.1
1985-1989	30.3	6.0	14.4	7.2
1990-1994	27.9	5.5	15.0	7.1
1995-1999	25.2	5.3	13.7	7.2
2000-2004	22.4	5.1	12.1	7.5
2005-2009	20.6	5.3	11.8	7.7
2010-2014	18.7	5.4	11.7	8.1
2015-2019	17.4	5.8	11.7	8.7
2020-2024	16.1	6.2	11.4	9.3

Sources: Mexico: From 1895 to 1929: Collver, Andrew (1965). *Birth Rates in Latin America: New Estimates of Historical Trends and Fluctuations*. From 1930 to 1970: CEED (1970). *Dinamica de la Población de México*, Direction General de Estadística, El Colegio de México. SIC: *Anuarios Estadísticos*, different years. For 1970-1974: Secretaria de Programacion y Presupuesto, *Agenda estadística 1978*. From 1975 to 1979, birth rates: Segundo Informe de Gobierno de Miguel de la Madrid Hurtado, Sector Salud y Seguridad Social, *Informacion Estadística*, p. 291; mortality rates: United Nations, *Demographic Yearbook*, annual publication. From 1980-2025: Miguel, José (1992). *Indicadores Demograficos para 75 años, Demos*, p. 5.

Canada: Birth rates from 1895 to 1920: Henripin, J. (1968). *Tendencies and Fertility Factors in Canada*, p. 370; for birth and mortality rates from 1921 to 1991: Canadian Centre for Health Information, *Births and Deaths*, annual. From 1992 to 2025: Statistics Canada, Demography Division, *Demographic Projections 1990-2011 based on recent changes in levels of fertility and revised quotas of immigration*, December 1991.

Table A3. Age Dependency Ratio for Canada, the United States and Mexico, 1931 to 2030

Year	Canada			United States			Mexico ¹		
	Young (Y/A)	Elderly (E/A)	Total ((Y + E)/A)	Young (Y/A)	Elderly (E/A)	Total ((Y + E)/A)	Young (Y/A)	Elderly (E/A)	Total ((Y + E)/A)
1931	50.3	8.8	59.2 ¹	45.1	8.3	53.3 ¹	68.9	6.0	74.9 ⁴
1941	42.4	10.2	52.6 ¹	...	...	...	77.1	5.6	82.6 ⁴
1951	49.0	12.5	61.5 ¹	41.4	12.5	53.8 ¹	79.5	6.2	85.7 ⁴
1961	58.1	13.1	71.2 ¹	64.9	16.8	81.6 ³	85.7	6.9	92.6 ⁴
1971	57.9	13.9	71.8 ²	60.6	17.5	78.0 ³	92.0	7.4	99.4 ⁴
1981	45.2	15.6	60.8 ³	46.5	18.6	65.1 ³	71.7	6.1	77.8 ⁵
1990	39.4	18.1	57.5 ³	41.8	20.4	62.2 ³	65.2	6.4	71.6 ⁶
2000	38.1	20.3	58.3	41.8	20.6	62.4 ³	54.8	7.3	62.1 ⁷
2010	34.3	22.2	56.6	38.7	21.3	60.0 ³	43.8	8.4	52.2 ⁷
2020	33.8	29.7	63.5	39.6	27.8	67.4 ³	..	..	..
2025	..	..	..	..	..	..	34.0	12.0	46.0
2030	35.0	37.7	72.7	42.3	36.1	78.4 ³	..	..	..

Y = Young, E = Elderly and A = Adults.

¹ Aged 0-14, 15-64 and 65 and over.

² Aged 0-16, 17-64 and 65 and over.

³ Aged 0-17, 18-64 and 65 and over.

⁴ According to Marta Mier Y Teran.

⁵ Census of Mexico 1980.

⁶ Census of Mexico 1990.

⁷ CELADE projections.

Sources: Canada: Census of Canada and population projections, Demography Division;
United States: United States Census and projections from the U.S. Census Bureau;
Mexico: See footnotes 4, 5 and 6 and CELADE projections.

Table A4. Infant Mortality Rates (Observed and Estimated), Mexico, 1930-1990 (per 1,000)

Year	Observed Rates			Estimated Rates		
	Males	Females	Both Sexes	Males	Females	Both Sexes
1930	157.56	143.23	150.62	171.64	154.24	163.15
1931	146.59	130.43	138.74	170.05	152.74	161.61
1932	144.91	128.99	137.16	168.50	151.25	160.09
1933	145.04	130.23	137.83	166.97	149.76	158.57
1934	142.36	128.39	135.57	165.42	148.27	157.05
1935	140.32	125.83	133.29	163.82	146.78	155.51
1936	139.57	124.76	132.38	162.16	145.29	153.93
1937	137.91	124.04	131.17	160.40	143.80	152.30
1938	134.96	121.81	128.56	158.52	142.31	150.61
1939	133.10	119.44	126.46	156.48	140.76	148.81
1940	131.82	117.42	124.83	154.25	139.03	146.83
1941	130.45	116.51	123.69	151.80	137.03	144.60
1942	127.23	114.33	121.00	149.09	134.64	142.04
1943	123.12	111.82	117.69	146.08	131.77	139.10
1944	119.12	108.04	113.81	142.83	128.48	135.83
1945	116.27	105.78	111.24	139.48	124.97	132.40
1946	111.93	100.64	106.50	136.19	121.47	129.01
1947	109.69	97.85	103.98	133.12	118.19	125.84
1948	109.60	96.43	103.23	130.45	115.32	123.07
1949	108.99	95.77	102.58	128.14	112.88	120.70
1950	107.85	94.79	101.52	126.02	110.71	118.55
1951	102.09	89.07	95.78	123.89	108.63	116.45
1952	101.61	88.84	95.43	121.55	106.49	114.20
1953	95.50	83.35	89.61	118.81	104.12	111.64
1954	92.85	81.72	87.46	115.67	101.49	108.75
1955	84.20	73.92	79.22	112.33	98.70	105.68
1956	83.71	73.84	78.93	108.98	95.88	102.59
1957	82.23	72.59	77.56	105.82	93.14	99.64
1958	83.75	73.97	79.00	102.49	90.13	96.46
1959	81.94	71.40	76.81	99.86	87.60	93.88
1960	79.04	68.45	73.88	97.98	85.65	91.96
1961	77.02	66.64	71.97	96.65	84.13	90.54
1962	75.08	64.98	70.18	95.65	82.88	89.42
1963	73.14	63.17	68.31	94.74	81.72	88.39
1964	70.00	59.83	65.06	93.71	80.48	87.26
1965	68.22	57.97	63.23	92.39	79.01	85.86
1966	67.59	57.34	62.59	90.75	77.28	84.18
1967	69.02	58.40	63.84	88.80	75.31	82.22
1968	70.32	59.51	65.05	86.57	73.10	80.00
1969	72.41	61.08	66.88	84.13	70.71	77.58
1970	72.26	60.58	66.56	81.76	68.39	75.24
1971	70.47	58.77	64.75	79.81	66.44	73.28
1972	64.81	53.61	59.33	78.61	65.11	72.02
1973	58.49	48.26	53.46	78.12	64.37	71.41
1974	54.20	44.40	49.37	77.91	63.86	71.06
1975	54.04	43.99	49.09	77.52	63.22	70.55
1976	55.23	44.78	50.09	76.56	62.15	69.53
1977	52.39	42.44	47.50	74.91	60.58	67.92
1978	48.18	38.76	43.55	72.54	58.49	65.69
1979	44.74	35.96	40.42	69.43	55.86	62.81
1980	43.16	34.35	38.82	65.61	52.71	59.32
1981	40.84	32.63	36.80	61.36	49.23	55.44
1982	37.68	29.93	33.86	57.00	45.68	51.48
1983	35.45	28.47	32.00	52.85	42.31	47.71
1984	32.42	26.17	29.33	49.23	39.35	44.41
1985	29.56	24.10	26.86	46.21	36.88	41.66
1986	26.92	21.82	24.40	43.42	34.59	39.11
1987	26.03	20.81	23.45	41.26	32.80	37.13
1988	26.88	21.22	24.09	39.56	31.39	35.58
1989	27.41	21.55	24.52	39.17	31.03	35.20
1990	28.01	22.09	25.09	38.78	30.67	34.82

Source: Gómez, José, Virgilio Partida (1992). *Niveles y Tendencias de la Mortalidad en Los Primeros Años de Vida en México, 1930-1990*, CEPS, p. 26.

Table A5a. Nuptiality Tables for Single, Males, Mexico, 1970, 1980, 1990

Age x	1970			1980			1990		
	Proportions Remaining Single	Number of First Marriages	First Marriage Probabilities (p. 1,000)	Proportions Remaining Single	Number of First Marriages	First Marriage Probabilities (p. 1,000)	Proportions Remaining Single	Number of First Marriages	First Marriage Probabilities (p. 1,000)
12	1 000	5	5	1 000	20	20	1 000	4	4
13	995	3	3	980	13	13	996	3	3
14	992	3	3	967	4	4	993	3	3
15	989	8	8	963	6	6	990	9	9
16	981	19	20	957	14	15	981	19	20
17	962	35	37	943	33	34	962	36	37
18	927	53	57	910	52	57	926	53	57
19	874	66	75	858	67	78	873	65	75
20	808	76	94	791	77	97	808	73	91
21	732	80	109	714	81	114	735	77	105
22	652	80	123	633	81	128	658	77	116
23	572	78	136	552	77	140	581	73	126
24	494	73	148	475	72	152	508	69	135
25	421	66	158	403	66	163	439	63	143
26	355	58	163	337	58	171	376	56	150
27	297	47	158	279	48	173	320	48	150
28	250	38	152	231	39	169	272	40	147
29	212	28	133	192	30	156	232	34	145
30	184	22	119	162	24	146	198	27	137
31	162	17	104	138	17	126	171	22	130
32	145	14	98	121	13	105	149	17	116
33	131	11	86	108	9	82	132	14	104
34	120	10	82	99	6	61	118	12	99
35	110	8	75	93	4	46	106	9	84
36	102	7	67	89	3	33	97	7	74
37	95	6	62	86	4	47	90	6	68
38	89	4	46	82	3	42	84	5	64
39	85	4	44	79	4	49	79	5	59
40	81	3	38	75	4	50	74	4	54
41	78	3	39	71	3	48	70	3	49
42	75	2	27	68	3	37	67	3	38
43	73	3	38	65	3	46	64	3	44
44	70	2	32	62	1	16	61	2	32
45	68	2	29	61	2	25	59	1	21
46	66	1	22	59	1	25	58	2	26
47	65	1	9	58	-	8	56	-	9
48	64	1	16	58	1	15	56	1	18
49	63	-	-	57	1	14	55	-	8
50	63	...	...	56	...	...	55	...	...

See notes at the end of this table.

Table A5b. Nuptiality Tables for Single, Females, Mexico, 1970, 1980, 1990 - Concluded

Age x	1970				1980				1990			
	Proportions Remaining Single	Number of First Marriages	First Marriage Probabilities (p. 1,000)	Proportions Remaining Single	Proportions Remaining Single	Number of First Marriages	First Marriage Probabilities (p. 1,000)	Proportions Remaining Single	Number of First Marriages	First Marriage Probabilities (p. 1,000)	Proportions Remaining Single	Number of First Marriages
12	1,000	8	8	1,000	1,000	21	21	1,000	6	6	1,000	6
13	992	19	20	979	979	25	26	994	13	13	994	13
14	973	35	36	954	954	33	34	981	24	24	981	24
15	938	51	54	921	921	42	46	957	37	38	957	37
16	887	63	71	879	879	53	61	920	49	53	920	49
17	824	74	90	825	825	66	80	871	63	72	871	63
18	750	82	109	759	759	77	102	808	73	91	808	73
19	668	86	128	682	682	83	122	735	80	109	735	80
20	582	84	144	599	599	84	140	655	82	125	655	82
21	498	78	157	515	515	79	153	573	78	137	573	78
22	420	67	160	436	436	69	158	495	71	143	495	71
23	353	56	158	367	367	57	155	424	62	145	424	62
24	297	45	152	310	310	46	149	362	52	145	362	52
25	252	37	145	264	264	37	141	310	44	143	310	44
26	215	29	135	227	227	30	132	266	37	139	266	37
27	186	23	125	197	197	24	120	229	30	131	229	30
28	163	19	115	173	173	20	113	199	25	124	199	25
29	144	15	106	153	153	15	100	174	19	111	174	19
30	129	11	88	138	138	12	88	155	16	100	155	16
31	118	10	81	126	126	10	77	139	12	88	139	12
32	108	8	74	116	116	8	69	127	10	78	127	10
33	100	7	72	108	108	7	66	117	8	70	117	8
34	93	5	58	101	101	5	54	109	7	61	109	7
35	88	5	53	96	96	5	50	102	5	52	102	5
36	83	4	48	91	91	4	41	97	4	44	97	4
37	79	2	27	87	87	4	46	93	4	41	93	4
38	77	2	21	83	83	2	24	89	2	22	89	2
39	75	1	17	81	81	3	33	87	3	29	87	3
40	74	-	-	78	78	2	29	84	1	18	84	1
41	74	1	14	76	76	1	13	83	2	26	83	2
42	73	-	4	75	75	2	22	81	2	22	81	2
43	73	1	10	73	73	1	16	79	2	23	79	2
44	72	1	10	72	72	1	13	77	2	29	77	2
45	71	-	6	71	71	1	10	75	1	13	75	1
46	71	-	-	70	70	-	5	74	1	20	74	1
47	71	-	-	70	70	-	-	73	1	13	73	1
48	71	-	-	70	70	-	-	72	1	8	72	1
49	73	-	-	70	70	-	-	71	-	3	71	-
50	74	...	...	71	71	...	...	71	...	...	71	...

Source: Quilodran, J. (1980). Tablas de Nupcialidad Para México, *Demografía y Economía*, No. 41, El Colegio de México.

Table A6. Mexican Population in 1990 by State, by Place of Birth and Place of Residence 5 Years Earlier

State	Population in 1990	Population Born in Another State		Population Aged 5 and Over	Living in Another State in 1985	
		Number	Percentage		Number	Percentage
Aguascalientes	719,659	138,380	19.2	619,401	44,012	7.1
Baja California	1,660,855	747,730	45.0	1,425,801	220,848	15.5
Baja California Sur	317,764	96,857	30.5	275,985	29,539	10.7
Campeche	535,185	115,483	21.6	456,452	34,500	7.6
Coahuila De Zaragoza	1,972,340	284,522	14.4	1,730,829	69,278	4.0
Colima	428,510	115,085	26.9	371,876	31,123	8.4
Chiapas	3,210,496	107,030	3.3	2,710,283	43,947	1.6
Chihuahua	2,441,873	348,686	14.3	2,118,557	118,343	5.6
Distrito Federal	8,235,744	1,990,652	24.2	7,373,239	299,285	4.1
Durango	1,349,378	146,822	10.9	1,169,332	41,301	3.5
Guanajuato	3,982,593	302,141	7.6	3,396,283	98,926	2.9
Guerrero	2,620,637	128,359	4.9	2,228,077	46,959	2.1
Hidalgo	1,888,366	184,613	9.8	1,628,542	67,114	4.1
Jalisco	5,302,689	709,202	13.4	4,584,728	178,259	3.9
México	9,815,795	3,804,249	39.6	8,563,538	787,020	9.2
Michoacán	3,548,199	269,392	7.6	3,037,340	106,146	3.5
Morelos	1,195,059	339,297	28.4	1,048,065	91,322	8.7
Nayarit	824,643	122,312	14.8	711,691	35,934	5.0
Nuevo León	3,098,736	707,462	22.8	2,750,624	114,049	4.1
Oaxaca	3,019,560	168,049	5.6	2,602,479	74,083	2.8
Puebla	4,126,101	350,504	8.5	3,565,924	126,056	3.5
Querétaro	1,051,235	179,214	17.0	898,199	67,976	7.6
Quintana Roo	493,277	273,611	55.5	412,868	92,895	22.5
San Luis Potosí	2,003,187	186,262	9.3	1,723,605	64,531	3.7
Sinaloa	2,204,054	267,124	12.1	1,923,515	83,139	4.3
Sonora	1,823,606	296,657	16.3	1,596,063	72,307	4.5
Tabasco	1,501,744	143,088	9.5	1,288,222	47,965	3.7
Tamaulipas	2,249,581	521,399	23.2	1,974,755	115,424	5.8
Tlaxcala	761,277	93,595	12.3	662,426	35,906	5.4
Veracruz	6,228,239	583,665	9.4	5,424,172	163,924	3.0
Yucatán	1,362,940	74,617	5.5	1,188,433	38,395	3.2
Zacatecas	1,276,323	100,117	7.8	1,100,898	36,731	3.3

Source: Census of Mexico, 1990.

Table A7. Labour Force by Region and Sex, Mexico, 1970 and 1990

Region	Population			Participation Rate (%)	Employment Rate (%)
	Aged 12 and Over (1)	In Labour Force (2)	Occupied (3)	(4) = (2)/(1)	(5) = (3)/(1)
1970					
Males	14,625,590	10,255,248	9,968,315	70.12	68.16
North-Eastern Region	972,573	687,855	668,155	70.73	68.70
Central Region	4,840,081	3,409,774	3,290,564	70.45	67.99
South Pacific Region	1,560,049	1,083,082	1,069,457	69.43	68.55
Gulf Region	1,399,186	1,018,457	1,000,988	72.79	71.54
North-Western Region	1,202,777	828,916	799,115	68.92	66.44
Occidental Region	2,518,611	1,745,789	1,701,774	69.32	67.57
Northern Region	1,780,243	1,222,666	1,182,825	68.68	66.44
South-Eastern Region	352,070	258,709	255,437	73.48	72.55
Females	15,071,713	2,654,292	2,456,038	17.61	16.30
North-Eastern Region	991,018	178,794	167,070	18.04	16.86
Central Region	5,154,669	1,127,874	1,042,905	21.88	20.23
South Pacific Region	1,596,155	230,824	213,351	14.46	13.37
Gulf Region	1,410,394	186,584	171,668	13.23	12.17
North-Western Region	1,183,286	205,815	188,410	17.39	15.92
Occidental Region	2,609,113	418,685	391,527	16.05	15.01
Northern Region	1,777,595	259,944	239,589	14.62	13.48
South-Eastern Region	349,483	45,772	41,518	13.10	11.88
1990					
Males	27,084,182	18,418,695	17,882,142	68.01	66.02
North-Eastern Region	1,901,913	1,293,543	1,251,903	68.01	65.82
Central Region	9,138,005	6,141,354	5,960,043	67.21	65.22
South Pacific Region	2,778,014	1,910,286	1,853,045	68.76	66.70
Gulf Region	2,584,976	1,814,335	1,761,610	70.19	68.15
North-Western Region	2,378,386	1,640,274	1,602,114	68.97	67.36
Occidental Region	4,451,174	3,011,395	2,922,934	67.65	65.67
Northern Region	3,040,156	2,027,503	1,959,636	66.69	64.46
South-Eastern Region	811,558	580,005	570,857	71.47	70.34
Females	28,829,665	5,644,588	5,521,271	19.58	19.15
North-Eastern Region	1,964,978	453,274	442,231	23.07	22.51
Central Region	9,919,742	2,249,058	2,197,331	22.67	22.15
South Pacific Region	2,930,673	376,763	367,174	12.86	12.53
Gulf Region	2,689,601	384,033	373,953	14.28	13.90
North-Western Region	2,393,474	532,816	522,411	22.26	21.83
Occidental Region	4,930,593	913,295	898,140	18.52	18.22
Northern Region	3,183,501	583,435	570,378	18.33	17.92
South-Eastern Region	817,103	151,914	149,653	18.59	18.32

Sources: Census of Mexico 1970 and 1990.

Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990

State of Residence in 1985	State of Residence in 1990						
	Aguascalientes	Baja California	Baja California Sur	Campeche	Coahuila de Zaragoza	Colima	Chiapas
Aguascalientes	-	1,304	80	16	421	89	69
Baja California	434	-	2,385	105	587	628	179
Baja California Sur	70	3,049	-	39	218	133	44
Campeche	33	275	88	-	103	71	1,237
Coahuila De Zaragoza	615	2,047	453	93	-	169	213
Colima	93	2,739	237	81	205	-	257
Chiapas	188	1,317	177	4,717	366	387	-
Chihuahua	798	2,886	456	88	4,339	163	224
Distrito Federal	14,642	25,696	4,079	2,574	7,915	3,211	10,000
Durango	620	7,935	1,163	155	12,729	186	117
Guanajuato	1,818	11,603	1,352	204	1,954	834	251
Guerrero	198	5,313	2,587	304	586	2,334	1,034
Hidalgo	387	2,041	206	112	652	203	281
Jalisco	6,678	25,749	1,960	234	1,960	11,135	955
México	3,879	8,344	1,370	772	2,400	1,122	2,925
Michoacán	690	15,874	1,288	534	1,094	5,484	536
Morelos	299	2,993	177	126	476	132	323
Nayarit	203	11,433	690	51	244	462	91
Nuevo León	806	1,211	183	185	13,039	217	363
Oaxaca	174	8,744	1,644	836	563	550	4,261
Puebla	416	5,692	452	620	712	326	1,829
Querétaro	383	1,149	144	80	538	184	145
Quintana Roo	31	222	78	1,549	191	75	555
San Luis Potosí	1,552	1,294	203	80	3,074	217	159
Sinaloa	401	39,867	4,805	166	936	637	1,324
Sonora	280	21,097	1,712	99	788	376	297
Tabasco	88	381	100	9,191	312	91	194
Tamaulipas	537	1,078	185	710	4,199	325	7,569
Tlaxcala	57	846	70	95	110	68	461
Veracruz	606	4,852	783	7,376	1,842	913	160
Yucatán	87	186	54	2,722	103	55	7,102
Zacatecas	6,916	3,347	299	545	6,538	326	419
Total In-migration	43,979	220,564	29,460	34,459	69,194	31,103	42,322
Total Out-migration	17,452	40,309	11,735	24,697	80,748	18,356	69,824
Net Migration	26,527	180,255	17,725	9,762	-11,554	12,747	-27,502
							118,079
							40,146
							77,933

See notes at the end of this table.

Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 - Continued

State of Residence in 1985	State of Residence in 1990							
	Distrito Federal	Durango	Guanajuato	Guerrero	Hidalgo	Jalisco	México	Michoacán
Aguascalientes	1,149	327	1,197	89	96	3,534	990	344
Baja California	2,681	1,006	1,560	453	211	6,537	2,089	1,990
Baja California Sur	767	431	328	243	54	1,085	544	295
Campeche	929	181	187	123	54	316	601	323
Coahuila De Zaragoza	1,978	12,399	1,419	172	269	1,959	2,088	824
Colima	785	96	455	525	118	6,406	699	1,556
Chiapas	7,018	355	524	621	381	2,222	6,294	1,094
Chihuahua	1,936	3,989	874	198	209	1,930	1,559	594
Distrito Federal	-	4,243	35,766	15,765	28,686	37,330	548,974	35,528
Durango	1,240	-	661	168	148	2,194	1,380	472
Guanajuato	9,070	551	-	546	906	9,178	12,781	7,833
Guerrero	16,649	306	1,080	-	769	7,085	17,606	11,401
Hidalgo	22,947	253	1,612	631	-	2,183	29,191	954
Jalisco	8,818	1,479	8,596	1,125	784	-	7,515	11,998
México	80,905	1,705	15,227	7,489	16,336	11,242	20,546	15,762
Michoacán	14,926	576	8,482	3,659	900	22,075	-	-
Morelos	7,802	158	842	4,311	556	1,485	8,413	1,159
Nayarit	789	394	463	207	109	11,966	809	973
Nuevo León	3,169	1,654	1,750	299	354	2,589	2,622	731
Oaxaca	25,696	265	529	3,825	850	2,308	26,573	1,132
Puebla	31,200	298	1,263	1,495	4,125	2,647	34,199	1,239
Querétaro	4,568	268	3,899	261	1,006	1,712	5,345	1,049
Quintana Roo	1,493	130	166	356	92	557	886	321
San Luis Potosí	3,908	505	2,541	221	1,136	3,435	4,722	808
Sinaloa	2,743	2,783	1,057	388	290	9,057	1,750	1,279
Sonora	2,017	825	954	307	169	4,018	1,388	879
Tabasco	2,786	113	362	240	345	1,006	1,978	461
Tamaulipas	3,450	832	2,515	475	882	2,678	2,917	885
Tlaxcala	5,376	60	251	123	1,063	355	5,836	265
Veracruz	28,355	1,074	2,610	2,026	5,812	5,835	32,795	2,724
Yucatán	1,584	49	222	153	76	537	1,160	202
Zacatecas	1,501	3,843	1,027	123	178	12,550	2,117	527
Total In-migration	298,235	41,148	98,419	46,617	66,964	178,011	786,367	105,602
Total Out-migration	1,035,758	82,359	94,976	120,236	85,909	138,366	271,421	121,134
Net Migration	-737,523	-41,211	3,443	-73,619	-18,945	39,645	514,946	-15,532

See notes at the end of this table.

Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 - Continued

State of Residence in 1985	State of Residence in 1990							
	Morelos	Nayarit	Nuevo León	Oaxaca	Puebla	Querétaro	Quintana Roo	San Luis Potosí
Aguascalientes	130	168	618	57	218	246	68	953
Baja California	450	1,738	888	966	566	318	205	351
Baja California Sur	87	267	219	303	149	92	62	111
Campeche	98	53	246	399	361	62	6,289	68
Coahuila De Zaragoza	328	158	16,075	257	646	611	235	1,938
Colima	118	512	289	188	170	161	115	139
Chiapas	720	740	1,268	5,577	3,497	490	7,122	346
Chihuahua	279	248	2,166	198	638	473	191	581
Distrito Federal	32,463	2,738	10,921	20,393	38,213	27,553	11,100	16,092
Durango	193	770	3,065	144	235	353	244	560
Guanajuato	976	1,102	2,521	363	1,059	10,708	352	4,307
Guerrero	21,892	1,883	820	3,655	2,688	796	3,642	462
Hidalgo	1,057	267	984	515	4,331	3,151	421	2,263
Jalisco	1,015	11,543	3,001	875	1,681	1,505	961	2,820
México	14,648	1,142	3,384	9,863	17,505	9,733	2,282	5,661
Michoacán	2,060	2,224	1,534	869	1,379	2,445	558	1,246
Morelos	-	292	502	767	3,043	610	703	354
Nayarit	152	-	284	157	118	142	101	129
Nuevo León	373	213	-	400	842	682	448	6,502
Oaxaca	2,367	384	977	-	8,476	663	1,754	452
Puebla	5,680	351	1,176	4,386	-	1,030	1,653	724
Querétaro	434	315	1,358	170	533	-	214	1,831
Quintana Roo	239	115	252	351	473	174	-	120
San Luis Potosí	392	290	19,791	393	629	1,559	165	-
Sinaloa	276	3,956	1,519	960	598	345	344	449
Sonora	219	1,261	1,502	395	543	299	137	670
Tabasco	379	443	945	1,254	2,046	212	6,606	394
Tamaulipas	448	345	23,994	659	1,099	981	410	8,210
Tlaxcala	422	42	169	299	6,544	221	238	167
Veracruz	3,004	1,063	6,390	18,649	26,776	1,847	11,017	3,857
Yucatán	154	53	365	365	354	104	35,108	102
Zacatecas	174	1,189	6,621	65	276	291	65	2,540
Total In-migration	91,227	35,865	113,844	73,892	125,686	67,857	92,810	64,399
Total Out-migration	39,613	38,769	66,247	138,780	139,132	29,264	18,969	77,650
Net Migration	51,614	-2,904	47,597	-64,888	-13,446	38,593	73,841	-13,251

See notes at the end of this table.

Table A8. Internal Migration by Origin and Destination, Mexico, 1985-1990 - Concluded

State of Residence in 1985	State of Residence in 1990								
	Sinaloa	Sonora	Tabasco	Tamaulipas	Tlaxcala	Veracruz	Yucatán	Zacatecas	Total Out- migration
Aguascalientes	242	240	44	428	44	219	46	2,658	17,452
Baja California	3,586	6,756	98	422	140	697	180	682	40,309
Baja California Sur	1,148	890	27	138	21	316	60	164	11,735
Campeche	194	164	3,641	457	40	2,331	5,622	28	24,697
Coahuila De Zaragoza	883	1,125	258	5,690	97	854	137	2,450	80,748
Colima	477	433	86	281	55	584	73	177	18,356
Chiapas	532	480	10,309	935	280	9,653	1,431	119	69,824
Chihuahua	5,250	6,337	113	1,104	76	543	153	1,553	40,146
Distrito Federal	5,139	6,026	5,368	10,203	12,462	34,876	9,865	6,338	1,035,758
Durango	8,969	1,991	64	1,491	48	470	90	2,234	82,359
Guanajuato	2,447	2,060	271	4,203	222	1,693	282	2,09	94,976
Guerrero	9,383	1,292	468	1,106	323	2,966	294	1,018	120,236
Hidalgo	371	387	230	2,028	1,785	5,064	144	337	85,909
Jalisco	4,888	5,333	533	1,996	317	2,199	449	7,077	138,366
México	1,610	1,675	1,467	3,653	6,160	13,988	1,989	3,241	271,421
Michoacán	2,446	2,594	438	1,700	349	2,447	270	529	121,134
Morelos	315	337	302	457	296	1,475	208	105	39,613
Nayarit	4,328	2,643	75	229	28	358	58	529	38,769
Nuevo León	729	1,111	430	17,625	101	2,072	367	2,003	66,247
Oaxaca	13,393	1,334	1,794	969	512	25,962	879	204	138,780
Puebla	1,136	921	1,791	1,423	9,121	20,759	692	267	139,132
Querétaro	231	256	49	1,305	191	778	114	176	29,264
Quintana Roo	95	89	720	226	70	1,692	7,422	64	18,969
San Luis Potosí	507	858	295	21,885	110	3,326	177	2,094	77,650
Sinaloa	-	23,432	200	622	89	874	175	617	105,330
Sonora	7,261	-	155	615	198	703	142	417	53,840
Tabasco	319	156	-	1,016	145	11,544	3,509	113	54,412
Tamaulipas	489	644	1,428	-	152	12,295	282	612	75,599
Tlaxcala	105	128	111	125	-	1,333	92	39	25,028
Veracruz	1,817	1,580	15,714	31,464	2,317	-	3,120	464	236,281
Yucatán	116	91	1,272	207	41	1,232	-	36	47,384
Zacatecas	4,405	758	64	1,293	68	283	42	-	68,784
Total In-migration	82,811	72,121	47,815	115,296	35,858	163,586	38,364	36,554	3,468,508
Total Out-migration	105,330	53,840	54,412	75,599	25,028	236,281	47,384	68,784	3,468,508
Net Migration	- 22,519	18,281	- 6,597	39,697	10,830	- 72,695	- 9,020	- 32,230	-

Source: Instituto Nacional De Estadística Geografía E Informática, Estados Unidos Mexicanos, Resumen General, XI Censo General de Población Y Vivienda, 1990.

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Glossary¹

Census year: A neologism patterned after “fiscal year”. In Canada, it refers to the 12-month period between June 1 of one year to May 31 of the following year. It can equally designate the year during which a census is held.

Cohort: A group of individuals or couples who experience the same event during a specified period. For example, there are birth cohorts and marriage cohorts.

Cohort, fictitious: An artificial cohort created from portions of actual cohorts present at different successive ages in the same year.

Crude rate: Relates certain events to the size of the entire population. For example, the crude birth rate for Canada is the ratio of the number of births in Canada in a year to the size of the Canadian population at mid-year. Crude death rates and crude divorce rates are calculated in the same way.

Current index: An index constructed from measurements of demographic phenomena and based on the events reflecting those phenomena during a given period, usually a year. For example, life expectancy in 1981 is a current index in the sense that it indicates the average number of years a person would live if he or she experienced 1981 conditions throughout his or her life.

Dependency ratio: A ratio that denotes the dependency on the working population of some or all of the non-working population.

Depopulation: The decline in the population of an area through an excess of deaths over births (not to be confused with the depletion of an area through emigration).

Endogamy: Marriage within a specific group.

Endogenous: Influences from inside the system.

Excess mortality: In differential mortality, the excess of one group’s mortality rate over another’s (see Sex ratio).

Exogamy: Marriage outside of a specific group.

Exogenous: Influences from outside the system.

¹ For further information consult the following: International Union for the Scientific Study of Population, **Multilingual Demographic Dictionary**, Ordina Editions, Liège, 1980; van de Walle, Étienne. **The Dictionary of Demography**, ed. Christopher Wilson. Oxford, England: New York, NY, USA.

Fertility: Relates the number of live births to the number of women, couples or, very rarely, men.

Fertility, completed: The cumulative fertility of a cohort when all its members have reached the end of their reproductive period.

Fertility, cumulative: Total live births from the beginning of the childbearing period until a later date.

Frequency: Frequency of occurrence within a cohort of the events characterizing a particular phenomenon.

Frequency, cumulative: Total frequency from the start of the period of exposure to risk of event up to a later date.

Infant mortality: Mortality of children less than a year old.

Intercensal: The period between two censuses.

Life expectancy: A statistical measure derived from the life table that indicates the average years of life remaining for a person at a specified age, if the current age-specific mortality rates prevail for the remainder of that person's life.

Life table: A detailed description of the mortality of a population giving the probability of dying and various other statistics at each age.

Migration: Geographic mobility between one locale and another.

Natural increase: A change in population size over a given period as a result of the difference between the numbers of births and deaths.

Neonatal mortality: Mortality in the first month after birth (part of infant mortality).

Net migration: Difference between immigration and emigration for a given area and period of time.

Nulliparous: Pertaining to a woman or a marriage of zero parity (has not produced a child).

Parity: A term used in reference to a woman or a marriage to denote the number of births or deliveries by the woman or in the marriage. A two-parity woman is a woman who has given birth to a second-order child.

Population growth: A change, either positive or negative, in population size over a given period.

Population movement: Gradual change in population status over a given period attributable to the demographic events that occur during the period. Movement here is not a synonym for migration.

Post-neonatal mortality: Mortality between the ages of one month and one year.

Prevalence: Number of persons with a certain characteristic in a given group of persons.



Statistics
Canada

Statistique
Canada

- *The history of recent cohorts shows that those born between 1956 and 1960 have been hit particularly hard by unemployment. An average of 1 man in 10, and 1 woman in 12, could have been constantly unemployed from 1975 to 1992.*
- *The 1980s have been characterized by one of the best ten-year gains in male life expectancy since 1921, but one of the most mediocre for women.*
- *When compared with 1990, the total number of marriages in 1991 dropped by more than 8%. This decline is unparalleled in Canadian history.*
- *Mexico's population grew at an annual rate of 2.5% between 1980 and 1990, although the government still has a growth rate of 1.0% in its sights for the year 2000. Will the challenge be met?*
- *Mexico's life expectancy increased by 31 years for men and 36 years for women between 1930 and 1990. Very few countries of this size have realized such rapid progress.*
- *With its 85 million population, the age structure of a young country, and a labour force with many years left to grow, Mexico's economic potential is strong.*
- *At the time of the 1990 Census, 11% of the Mexicans aged 11 to 14 years were in the labour force, and 45% of those aged 65 years and over were still in the work force.*

